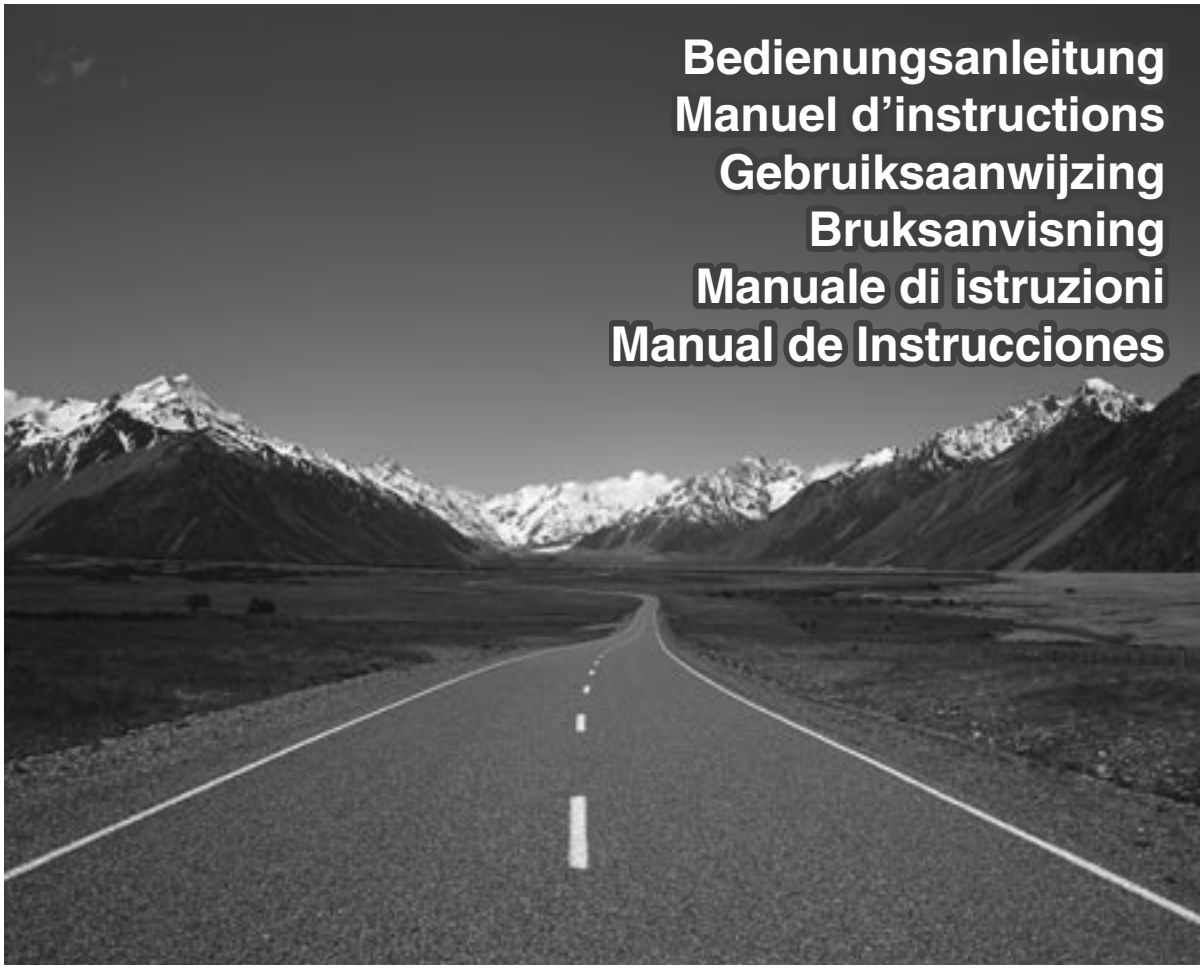
Panasonic

MP3 CD Player/Receiver with CD Changer Control

CQ-DFX572N

Operating Instructions



MP3

COMPACT disc DIGITAL AUDIO TEXT

PANASONIC INTELLIGENT RIDISI

- Please read these instructions carefully before using this product and keep this manual for future reference.
- Bitte lesen Sie diese Bedienungsanleitung vor der Verwendung dieses Produktes aufmerksam durch und bewahren Sie sie danach für spätere Nachschlagzwecke sorgfältig auf.
- Prière de lire ces instructions attentivement avant d'utiliser le produit et garder ce manuel pour l'utilisation ultérieure.
- Leest u deze instructie alstublieft zorgvuldig door voor u dit product in gebruik neemt en bewaar deze handleiding voor later gebruik.
- Läs igenom denna bruksanvisning noga innan produkten tas i bruk. Spara bruksanvisningen för framtida behov.
- Si prega di leggere attentamente queste istruzioni prima di usare questo prodotto e di conservare questo manuale per usi futuri.
- Lea con atención estas instrucciones antes de utilizar el producto y guarde este manual para poderlo consultar en el futuro.

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Panasonic welcomes you to their constantly growing family of electronic products owners.
We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

Precautions

Volume Level
For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.

Car Washing
To avoid electrical shorts which may cause fire, or other damage, do not expose this product (including the speakers and CDs) to water or excessive moisture.

Car Ventilation
If your car is parked for several hours in direct sunlight, the temperature inside the car may become very high. It is advisable to drive the car and give the interior a chance to cool down before switching the unit on.

Power Supply
This product is designed to be used in a car having a 12-Volt negative ground battery system.

Disc Mechanism
Do not insert coins or any small objects. Keep screwdrivers and other metallic objects away from the disc mechanism and disc.

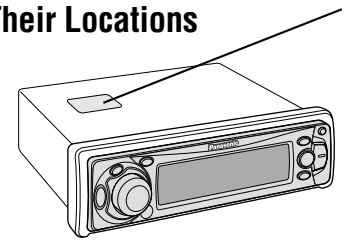
Service
This product is made of precision parts. Do not attempt to disassemble or adjust any parts. For repair, please consult your nearest authorized Panasonic Service Center.

Note: The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

Laser Product

Label Indications and Their Locations

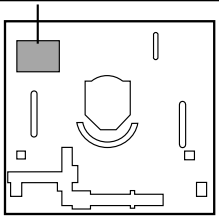
DANGER!
Invisible laser radiation when open. Avoid direct exposure to beam.



CLASS 1 LASER PRODUCT
- APPREIL À LASER DE CLASSE
- KLASS 1 LASER APPARAT
- LUOKAN 1 LASERPLAITE

Caution Label

DANGER! Invisible laser radiation when open. Avoid direct exposure to beam.
ADVARSEL! Usynligt laserlys udstråles ved åbning. Undgå direkte bestråling.
VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhedslås brytes. Unngå eksponering for strålen.



Deck Ass'y (Upper Side)

VORSICHT! UNSICHTBARE LASERSTRAHLUNG! WENN ABDECKUNG GEÖFFNET IST, NICHT DEM LASERSTRAHL AUSSETZEN.

Caution: This product utilizes a laser.
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser products:

Wave Length	780 nm
Laser Power	No hazardous radiation is emitted with safety protection.

Do not take apart this unit or attempt to make any changes yourself.
This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet.
Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

Components

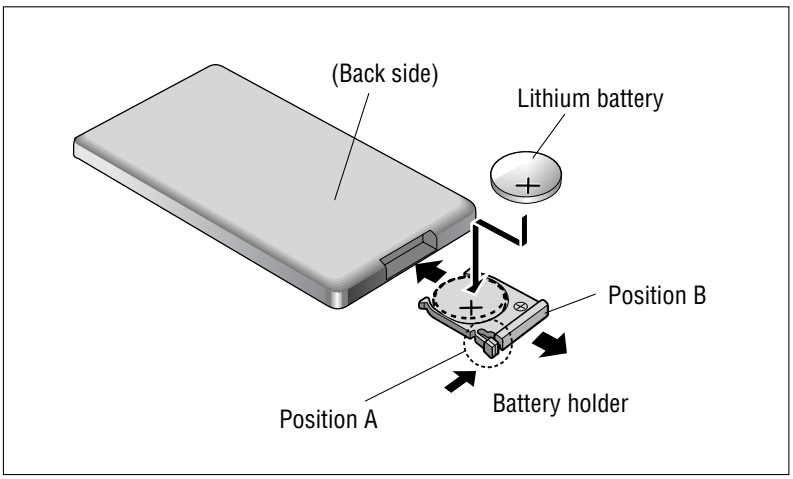
Components

- Operating Instructions 1
- Supplied Hardware.....1 set (➡ page 30)
- Remote Control Unit 1
- Lithium Battery (CR2025).....1
- Warranty Card.....1

Remote Control Preparation

Battery Installation

1. Remove the battery holder.
   Pull the holder out at position B while pushing position A as indicated.
2. Install the battery on the battery holder.
   Place the battery in the holder with its (+) side upwards as shown.
3. Insert the battery holder.
   Push in the battery holder back into its original position.



Battery Notes

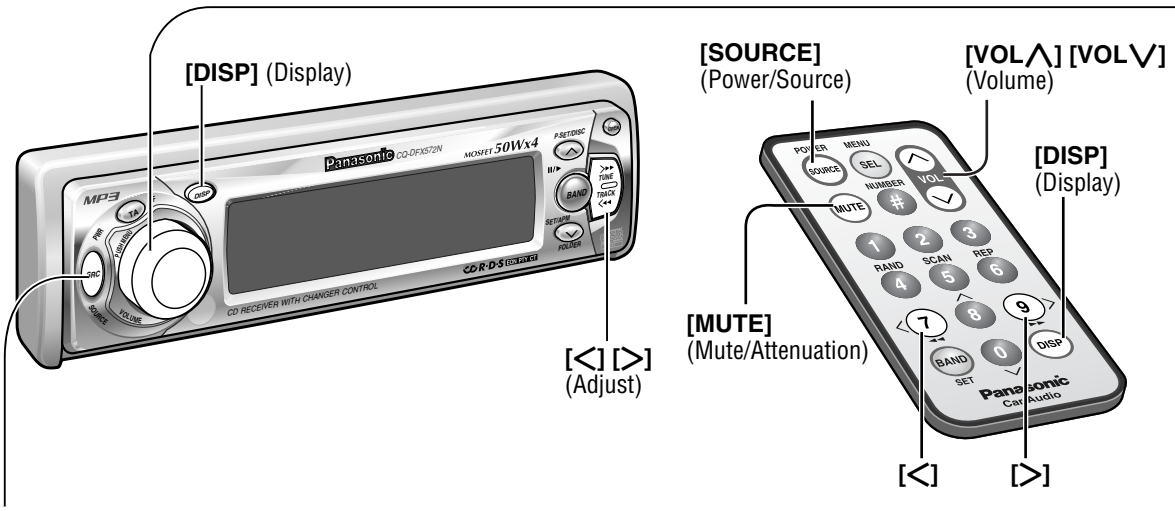
Remove and dispose of an old battery immediately.
Battery Information:

- Battery Type: Panasonic lithium battery (CR2025) (Included)
- Battery Life: Approximately 6 months under normal use (at room temperature)

Caution: Improper use of batteries may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the unit.

- Do not disassemble or short the battery. Do not throw a battery into a fire.
- Keep batteries away from children to avoid the risk of accidents.
- Follow local regulations when disposing of batteries.

General



Power

Turn your car's ignition key to ACC or ON position.

ON : Press **[SRC] / [SOURCE]**. Welcome!

OFF : Press **[SRC] / [SOURCE]** again and hold for more than 1 second.

Note: If the security function is set to ON, the security message is shown with a warning alarm. (Default: S-LED ON)
(➡ Page 28 about Security Function setting)

ACC Selection
If your car has the ACC position on the ignition switch, set the ACC selection to ON. (Default: ACC OFF)
(➡ Page 28)
ACC ON is attached to the functional descriptions under the ACC selection ON condition.

Demonstration Message
When you use this unit for the first time, a demonstration message appears on the display.
Press [DISP] to change to regular mode.

Pana
← ← ← Scrolling....

Note: To display the message again, press **[SRC] / [SOURCE]** for 4 seconds or more when turning power on. ACC ON

Source

Press **[SRC] / [SOURCE]** to change the source.

Radio
FM
(➡ Page 8)

CD Player
CD
(CD is in the player. ➡ Page 16)

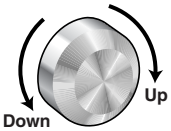
OR

MP3 Player
MP3
(MP3 data disc is in the player. ➡ Page 18)

CD Changer
CDC
(A optional CD changer is connected and magazine is in the changer. ➡ Page 22)

Auxiliary
AUX
Note: Connect to external devices.

Volume



Setting Range : 0 to 40

Note: The sound level for each source is stored in memory. (For radio, one volume setting for AM, one volume setting for all FMs)

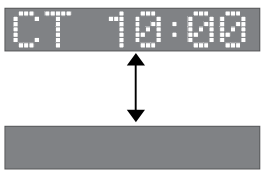
Mute / Attenuation

(Only for remote control)

ON : Press **[MUTE]**.
OFF : Press again.
Decreasing volume range depends on setting.
(Mute / Attenuation setting ➡ Page 28)

Clock Display

When the power is set to OFF and ACC is set to ON, press **[DISP]**.



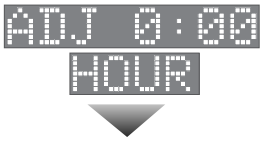
(Clock time)

(Display off)

When the power is set to ON, refer to the description for each source mode.

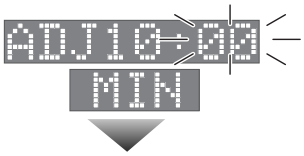
Clock Setting

Select the radio AM mode.(➡ Page 8)
Press and hold **[DISP]** for more than 2 seconds.

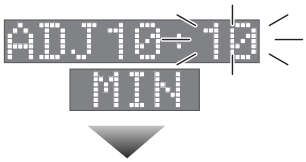


Adjust HOUR.
[>] : put forward hour.
[<] : put back hour.

Press **[DISP].**



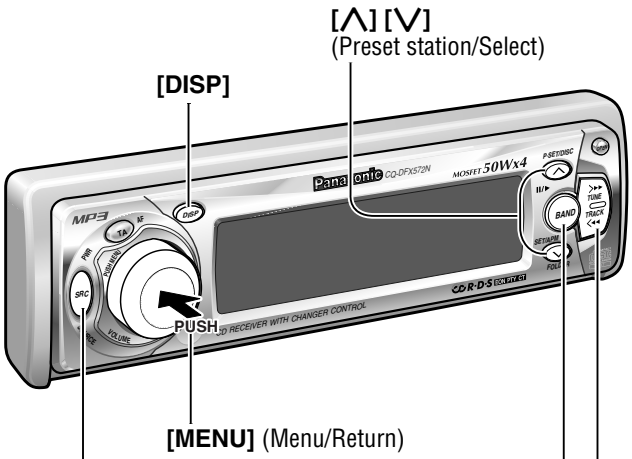
Adjust MINUTE.
[>] : put forward minute.
[<] : put back minute.

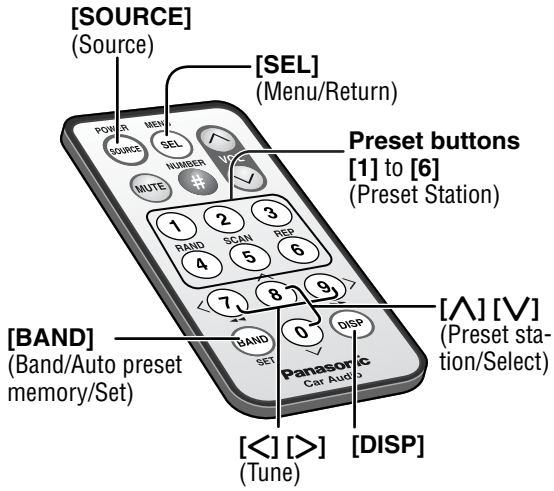


Press **[DISP].**

Note: When a broadcast of FM Radio Data System is received, the clock is put right automatically by the Clock Time service. (➡ Page 10)

Radio





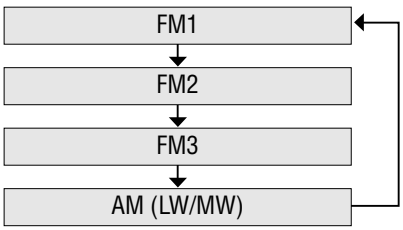
1 Radio Mode

Press **[SRC] / [SOURCE]** to select the radio mode.

Radio Mode Display

2 Band

Press **[BAND]**.



3 Tuning

[>] : Higher frequency
[<] : Lower frequency
Press and hold **[>]** or **[<]** for more than 0.5 seconds, then release. Seeking will start.

FM Stereo Indicator

FM Monaural Reception

Noise is significantly decreased when weak signals are received from an FM broadcast station.

① Press **[MENU]**.

② Press **[∧]** or **[∨]**.

③ Press **[BAND]**.

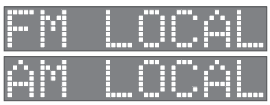
④ Press **[∧]** or **[∨]**.

⑤ Press **[BAND]**.

Local Tuning

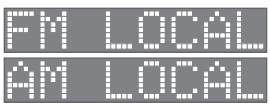
Only stations with good reception are detected in seek tuning.

① Press **[MENU]**.

② Press **[∧]** or **[∨]**. 

③ Press **[BAND]**.

④ Press **[∧]** or **[∨]**.

⑤ Press **[BAND]**. 

Station Preset

Up to 6 stations can be stored in each of the FM1, FM2, FM3 and AM (LW/MW) band selections.

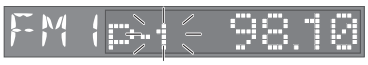
Manual Preset Memory

Manually save a station in preset memory.

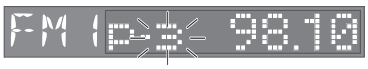
① **[BAND]** : Select a band.

② **[<]** or **[>]** : Tuning a station.

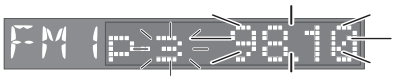
③ **[∧]** or **[∨]** : Hold for more than 2 seconds.



④ **[∧]** or **[∨]** : Select the preset number.



⑤ **[∧]** or **[∨]** : Hold for more than 2 seconds.



Notes:

- Frequency setting can be performed even after selecting a preset number.
- To suspend preset write, press **[DISP]**.

Auto Preset Memory

Automatically save stations with good reception in the preset memory.

① **[BAND]** : Select a band.

② **[BAND]** : Hold for more than 2 seconds.

- The 6 stations with good reception will be automatically saved in the memory under preset number **1** to **6**.
- Once set, the preset stations are sequentially scanned for 5 seconds each.

- To stop the scanning, press **[∧]** or **[∨]**. (Pressing one of the buttons from **[1]** to **[6]** on the remote control also can stop the scanning.)

Note: New stations overwrite existing saved stations after following this procedure.

Preset Station Calling

① **[BAND]** : Select a band.

② **[∧]** or **[∨]** : Select the preset number for tuning in the preset station.

■ To enter preset number directly from the remote control, select a band (Step ① above) and press one of the buttons from **[1]** to **[6]** on the remote control.

Radio Data System (RDS)

RDS Basics

Some FM stations are broadcasting added data compatible with RDS. This radio set offers convenient functions using such data.
RDS service availability varies with areas. Please understand if RDS service is not available in your area, the following service is not available, either. This chapter explains the summary and operation regarding RDS.
The following functions are available when receiving RDS stations.

Program Service Name (PS) Display

The name of station is displayed.

Alternative Frequency (AF)

When reception is poor, an RDS station broadcasting the same program is tuned in automatically.

Traffic Program (TP)

Some RDS FM stations periodically provide traffic announcement.
The station which broadcast the traffic announcement is called Traffic Program (TP).

Traffic Announcement (TA)

Radio announcements on traffic conditions.

Clock Time (CT) Service

When receiving an RDS station, the CT service automatically adjusts the time.
"NO CT" is displayed in areas where CT service is not available. (➡ Page 7 for Clock Adjustment)

Program Type (PTY) Display

RDS FM stations provide a program type identification signal.
Example: news, rock, classical music, etc.(➡ Page 13)

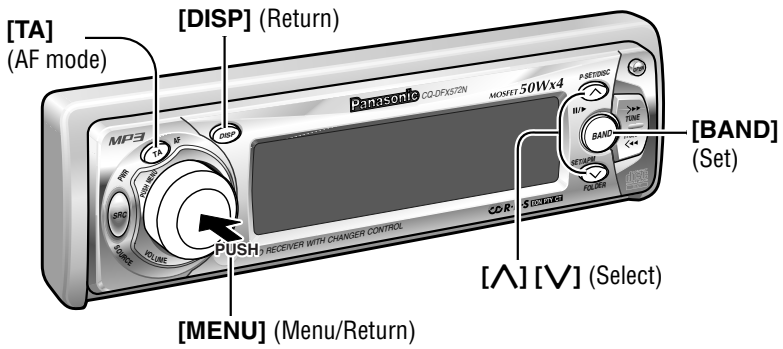
Alternative Frequency (AF)

Alternative Frequency (AF) Mode

Default: AF mode is active.
(Press and hold **[TA]** on the main unit for more than 2 seconds to switch the AF mode on or off.)
AF ON : AF, Best Station and PI Seek function are active.

AF ON (Default)

AF lights when AF is on.



Auto Preset Memory

When AF ON is selected, only RDS stations will be memorized automatically.
(➡ Page 9 for auto preset memory)

Note: When AF is set to OFF, stations other than RDS stations will also be saved in the memory.

AF Level and Region (REG) Mode

❶ Press **[MENU] / [SEL]** to display the menu.
❷ Press **[∧]** or **[∨]** to select an item.

AF Level

AF SEL

Press **[BAND]** to change the AF level.

AF 1 Low level AF sensitivity
(Default)
↕
AF 2 High level AF sensitivity

REG Mode

REGION

Changes the selection range of AF and PI Seek.
Press **[BAND]** to switch on or off in turn.

REG ON The frequency is changed only for programs within the region.
↕
REG OFF The frequency is changed also for programs outside the region.
(Default)

Notes:
- When REG mode is switched from OFF to ON or vise versa, AF mode turns on automatically.
- Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

Preset Memory (AF ON Setting)

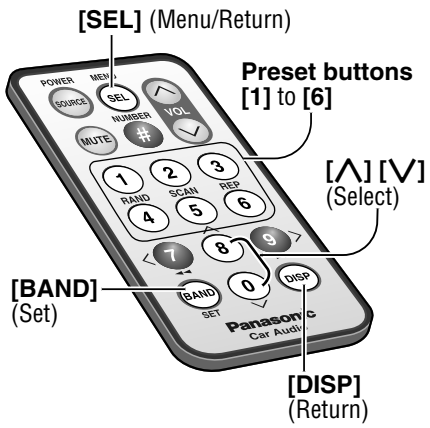
Preset Station Calling (Best Station)

AF self-tuning selects a station with good reception when the preset tuning is activated.

For Poor Sound Quality (PI Seek)
(Only for remote control)

If reception is poor when tuning in a preset station, press the same preset number button. The same station with better reception will be searched for.

Press the same preset number button again to cancel.



Radio Data System (RDS) (continued)

Traffic Announcement (TA)

Traffic Announcement (TA) Mode

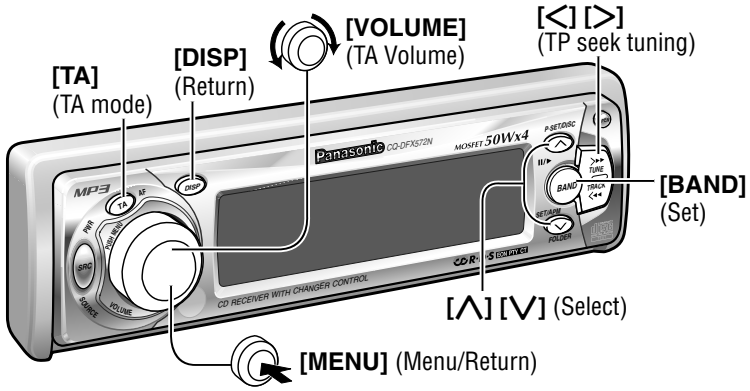
Press **[TA]** on the main unit to switch the TA mode on. (Press again to switch the TA mode off)

TA ON : If the station received is not a TP station, the unit automatically searches for a TP station to tune in to it. When the TP station received begins a traffic announcement, you can hear it from the unit.

TA Mode

Lights when TA is ON

Traffic Announcement receiving display



TA Volume Set

Traffic announcements are broadcast at the TA volume level.

❶ Press **[MENU] / [SEL]** to display the menu.
❷ Press **[∧]** or **[∨]** to select TA VOL.
❸ Press **[BAND]** to store the current volume level as the TA volume level.

Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

To listen to only traffic announcements

While listening to an FM station which is not currently broadcasting traffic announcement, turn the **[VOLUME]** to the counterclockwise or press **[VOL∨]** (remote control) to set the volume to 0. The traffic announcement will be output at the TA volume level.

TP Seek Tuning

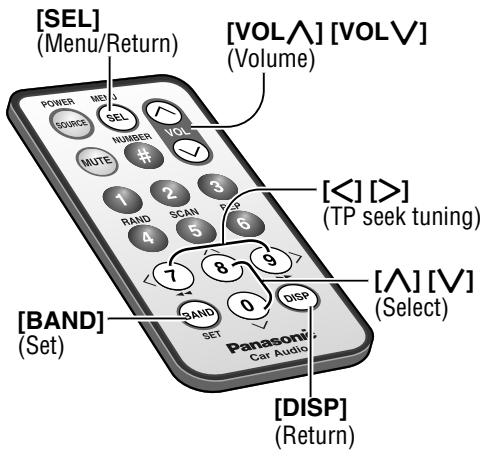
When TA ON is selected, only TP station will be searched.
Press and hold **[>]** or **[<]** for more than 0.5 seconds, then release. Seeking will start.

TP Auto Preset Memory

When TA ON is selected, only TP stations will be memorized automatically. (➡ Page 9 for auto preset memory)

TP Auto Search

When reception of a TP station is poor, TP Auto Search will automatically search for a TP station with better reception. (Only when in Muting in TA Mode.)



TA Standby Mode

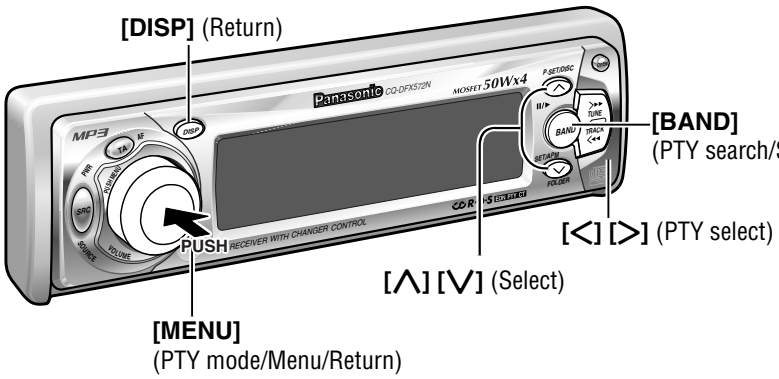
When set to TA on with the unit in another mode (CD, MP3, CD changer, AUX), it will automatically switch to radio mode and output the traffic announcement.
When the traffic announcement has finished, the unit will return to the previous mode.

Program Type (PTY) Reception

Program Type (PTY) Mode

Press and hold **[MENU] / [SEL]** for more than 2 seconds to switch the PTY display mode on. (Press and hold again to switch the PTY display mode off.)
PTY ON : PTY function described below becomes enabled after selecting to the PTY mode.

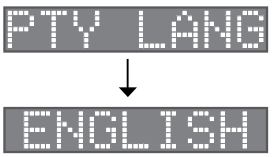
PTY Mode



PTY Language Selection

ENGLISH | DEUTSCH | FRANÇAIS | NEDERLANDS | SVENSKA | ITALIANO | ESPAÑOL

❶ Press **[MENU] / [SEL]** to display the RDS-PTY menu and press **[BAND]**.



(Default : English)

❷ Press **[∧]** or **[∨]** to select the language, and press **[BAND]**.

Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

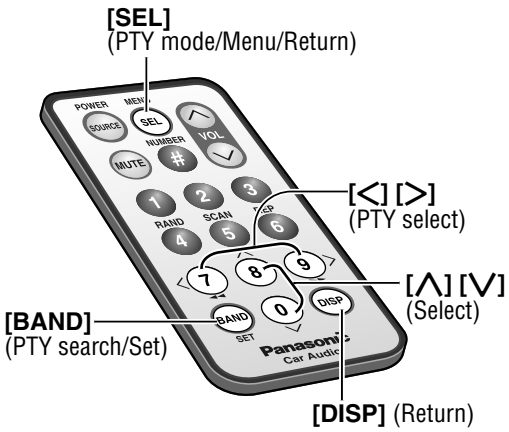
PTY Selection

❶ Press **[>]** to change the program type as shown below.
(**[<]** : opposite direction)

❷ Select the desired program type and press **[BAND]**.
Seek will start to tune in to a station broadcasting the selected program type.
Press **[BAND]** again to cancel.

→SPEECH → MUSIC → NEWS → AFFAIRS →
INFO → SPORT → EDUCATE → DRAMA →
CULTURE → SCIENCE → VARIED → POP M →
ROCK M → EASY M → LIGHT M → CLASSICS →
OTHER M → WEATHER → FINANCE → CHILDREN →
SOCIAL → RELIGION → PHONE IN → TRAVEL →
LEISURE → JAZZ → COUNTRY → NATION M →
OLDIES → FOLK M → DOCUMENT

Note: When there is no corresponding program type station, "NONE" is displayed for 2 seconds.



Radio Data System (RDS) (continued)

Program Type (PTY) Reception

PTY Preset Call

Program types are stored in memory under preset memory number 1 to 6 as shown in the table on the next page.
To select the desired program type, press **[∧]** or **[∨]** or preset buttons on the remote control.

PTY Preset Change

❶ Select the desired program type by using PTY Selection or PTY Preset Call.

❷ Press and hold **[∧]** or **[∨]** for more than 2 seconds until the preset number blinks.

❸ Press **[∧]** or **[∨]** to select the desired preset number.

❹ Press and hold **[∧]** or **[∨]** for more than 2 seconds to save the new preset number.

*On the remote control, select the program type and press and hold the preset buttons for more than 2 seconds.

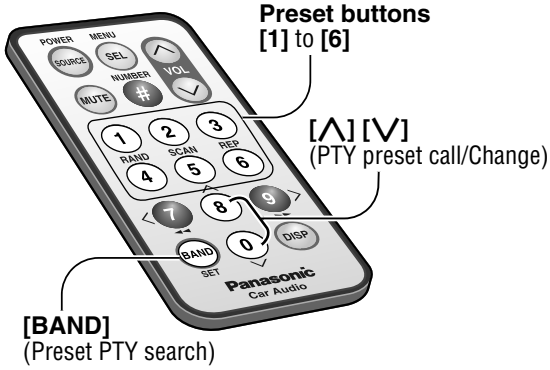
Note: To suspend preset write, press **[DISP]**.

Preset PTY Search

❶ Select a desired program type by PTY preset call.
❷ Press **[BAND]** to tune in the same program type station.

Press **[BAND]** again to cancel.

Note: When there is no corresponding program type station, “NONE” is displayed for 2 seconds.



Program Type (PTY) Reception

PTY Preset (Default)

Preset No.	Program Type	When PTY search is activated, these program type is receivable.
1	NEWS	NEWS
2	SPEECH	AFFAIRS, INFO, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, DOCUMENT
3	SPORT	SPORT
4	POP M	POP M
5	CLASSICS	CLASSICS
6	MUSIC	ROCK M, EASY M, LIGHT M, OTHER M, JAZZ, COUNTRY, NATION M, OLDIES, FOLK M

Other RDS functions

Enhanced Other Network (EON)

When EON data is received, the EON indicator lights the TA and AF functions are expanded as follows.

TA : Traffic information from the current and other network stations can be received.

AF : The frequency list of preset RDS stations is updated by EON data.

EON enables the radio to make fuller use of RDS information. It constantly updates the AF list of preset stations, including the one that is currently tuned in to. For example, if you preset a station far from home, you will later be able to receive the same station at an alternative frequency, or any other station serving the same program. EON also keeps track of locally available TP stations for quick reception.

Emergency Announcement Reception

When an emergency announcement is broadcast, the unit is automatically switched to receiving that broadcast. (Even when in CD mode, MP3 mode, CD changer mode and AUX mode.). During receiving the emergency announcement, "ALARM" appears on the display.

Note: Emergency announcements are broadcast at the TA volume level. (➡ Page12)

CD and MP3

CD Player

1 Open the Front Panel

Press **[OPEN]** on the front panel.

2 Insert a Disc

Insert a disc and close the front panel. Playback will start automatically after the unit recognized the loaded disc as an ordinary music CD. (When a CD-R or CD-RW which has CD-DA formatted data is loaded, this unit recognizes it as an ordinary music CD.)

Data reading. → READING

Ordinary music CD recognized and playback starts. → CD

or

MP3 data recognized and playback starts. → MP3

(See page 18 about MP 3 player)

Cautions:

- Do not use irregularly shaped discs.
- Do not use discs that have a seal or label attached.
- Be sure to close the front panel while CD playback.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.
- Do not pinch your finger or hand in the front panel. Do not insert foreign matter into the disc slots.

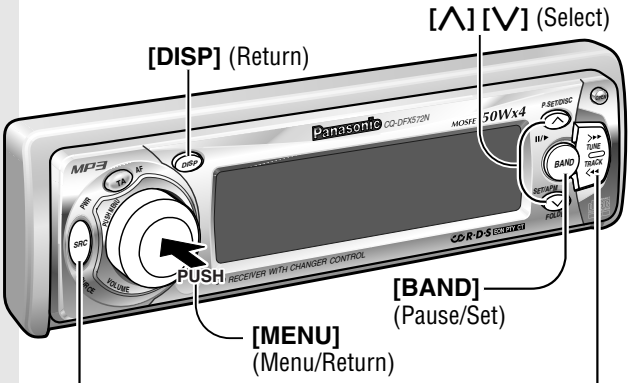
Notes:

- Do not insert a disc when DISC indicator lights because a disc is already loaded.
- When the power will be turned on automatically when a disc is loaded. (ACC ON)
- If a disc contains both CD-DA and MP3 data, only first-recorded data is played.

3 To Stop and Eject a Disc

Open the front panel and press **[⏏]**.

Note: The unit returns to previous mode when a disc is ejected in the CD player mode.



When a disc is in the player...

Press **[SRC] / [SOURCE]** to select the CD player mode and playback starts.

CD 01 0'20

Display change

Press **[DISP]** .

CD 01 0'20

Disc Title → CD THE BEST

Track Title → CD IF YOU W

Clock Time → CD CT 10:00

Track Selection

[►►]: Next track
[◄◄]: Beginning of the current track
For the previous track, press twice.

Fast Forward and Fast Reverse

Press and hold

[►►]: Fast Forward
[◄◄]: Fast Reverse

Release to resume the playback.

Pause

Press **[BAND]** to pause.
Press **[BAND]** again to resume playback.

Available Discs

CD-R CD-RW TEXT

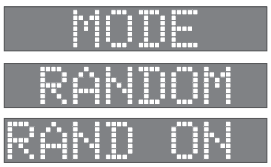
Note: Refer to the section on "Notes on CD-Rs/RWs" (➡ Page 39).

CD Mode Setting

① **[MENU] / [SEL]**

② **[∧]** or **[∨]** : Select an item.

③ **[BAND]**

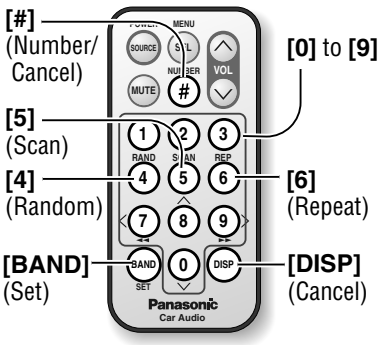


④ **[∧]** or **[∨]** : Switch on or off in turn.

⑤ **[MENU] / [SEL]** or **[DISP]** : Return to regular mode.

Random Play	RANDOM	RAND ON : All the available tracks are played in a random sequence. RAND OFF : Cancel
Repeat Play	REPEAT	REP ON : Repeat the current track. REP OFF : Cancel
Title Scroll Default : ON (Up to 62 letters can be displayed in scroll mode.)	SCROLL	SCRL ON : Continuous scroll SCRL OFF : Scroll stops after a circle scroll Press and hold **[DISP]** for more than 2 seconds to have an another circle scroll while a title is displayed.

Remote Control Operation



Direct Track Selection

Example: Track number 05

❶ Press **[#]**.
❷ Press **[5]**.
❸ Press **[BAND]**.

Notes:

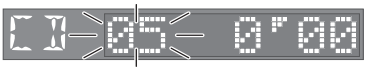
- To suspend direct track selection, press **[#]** or **[DISP]**.
- Random, Scan and Repeat play is canceled once **[#]** is pressed.

Random Play

Press **[4]**. The tracks are played in a random sequence.
Press **[4]** again to cancel.

Scan Play

Press **[5]**. The first 10 seconds of each track play in sequence.
Press **[5]** again to cancel.

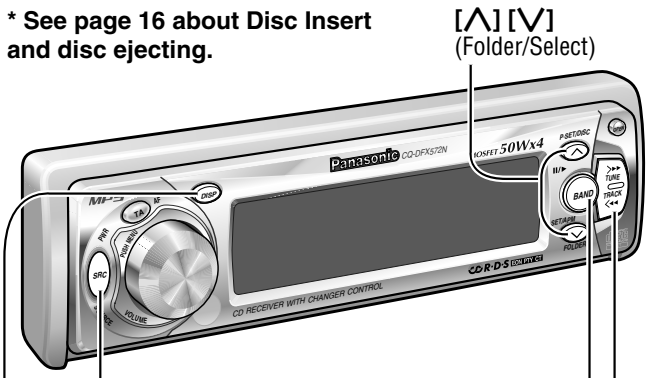


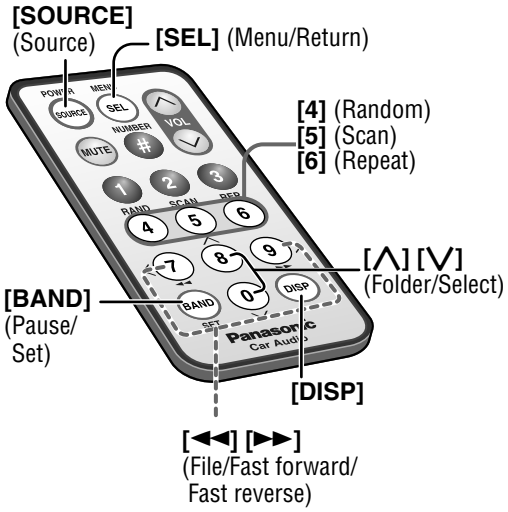
Repeat Play

Press **[6]**. The current track is repeated.
Press **[6]** again to cancel.

MP3 Player

*** See page 16 about Disc Insert and disc ejecting.**



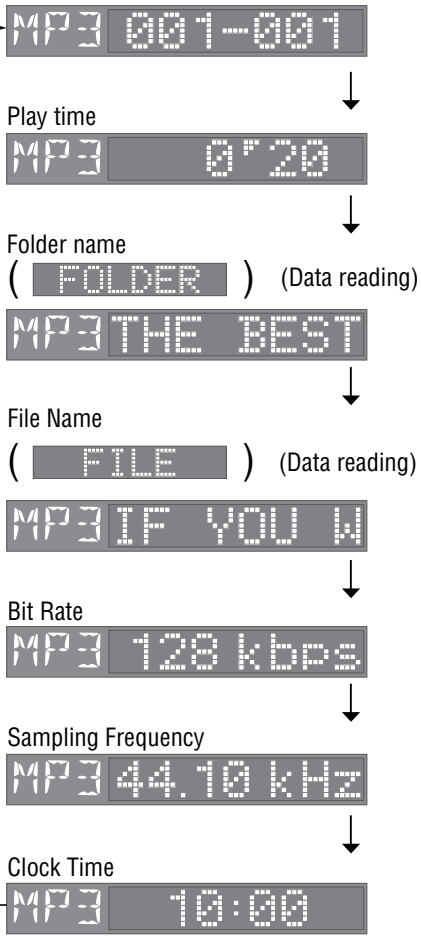


When disc is in the player

Press **[SRC] / [SOURCE]** to select the MP3 player mode and playback starts.

Display Change

Press **[DISP]**.



Folder Selection

[∧] : Next folder
[∨] : Previous folder

File Selection

[►►] : Next MP3 file
[◄◄] : Beginning of the current MP3 file
For the previous file, press twice.

Fast Forward / Fast Reverse

Press and hold
[►►] : Fast forward
[◄◄] : Fast reverse
Release to resume playback.

Pause

Press **[BAND]** to pause.
Press **[BAND]** again to resume playback.

Available Discs

MP3 CD-R | MP3 CD-RW | MP3 CD-ROM

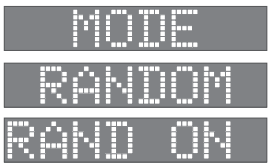
Note: Refer to the section on "Points to remember when recording an MP3 disc" (➡ Page 20) and "Notes on CD-Rs/RWs" (➡ Page 39).

MP3 Mode Setting with Menu

① **[MENU] / [SEL]**

② **[∧]** or **[∨]** : Select an item.

③ **[BAND]**



④ **[∧]** or **[∨]** : Switch on or off in turn.

⑤ **[MENU] / [SEL]** or **[DISP]** : Return to regular mode.

Random Play	All files RANDOM	RAND ON	: All the available MP3 files in all folders are played in a random sequence.
		RAND OFF	: Cancel
	One folder F-RANDOM	F-RND ON	: All the available MP3 files in current folder are played in a random sequence.
		F-RND OFF	: Cancel
Repeat Play	File REPEAT	REP ON	: Repeat the current MP3 file selection.
		REP OFF	: Cancel
	Folder F-REPEAT	F-REP ON	: Repeat the current folder selection.
		F-REP OFF	: Cancel
Name Scroll Default : ON	SCROLL	SCRL ON	: Continuous scroll
		SCRL OFF	: Scroll stops after a circle scroll Press and hold **[DISP]** for more than 2 seconds to have an another circle scroll while a name is displayed.

Remote Control Operation

Direct Folder Selection

■Folder number selection

Example: Folder number 005

❶ Press **[#]**.
❷ Press **[5]**.
❸ Press **[BAND]**.

■Folder name selection

❶ Press and hold **[#]** for more than 2 seconds.
❷ Press **[∧]** or **[∨]** to select the folder.
❸ Press **[BAND]**.

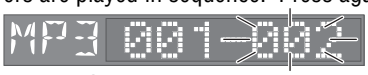
Notes:

- To suspend direct track selection, press **[#]** or **[DISP]**.
- If there is no file in the specified folder, error message "E4" appears. (➡ Page 44)
- Random, Scan and Repeat play are canceled once **[#]** is pressed.

Scan Play

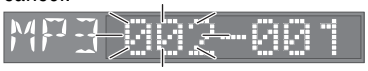
File Scan

Press **[5]**. The first 10 seconds of each MP3 file on all folders are played in sequence. Press again **[5]** to cancel.



Folder Scan

Press and hold **[5]** for more than 2 seconds. From the next folder, the first 10 seconds of the first MP3 file on each folders are played in sequence. Press and hold **[5]** again to cancel.



Random Play

File : Press **[4]**.
Folder: Press and hold **[4]**.

Repeat Play

File : Press **[6]**.
Folder: Press and hold **[6]**.

MP3 Player (continued)

Points to remember when recording an MP3 disc

This player allows you to play MP3 files recorded on CD-ROMs, CD-Rs (Recordable) and CD-RWs (Rewritable).

What is MP3

MP3, short for MPEG Audio Layer-3, is a standard for compressing digital video data adopted for video CDs and similar media. It is one of the audio compression systems covered by MPEG's (Motion Picture Experts Group) digital audio compression standards. What it does is reduce the number of bytes in a song without detracting from the sound quality by eliminating big sound waves within the sound range that is imperceptible to the human ear. This compression allows you to reduce the contents of a conventional music CD by a factor of around 10. This means that you can record the contents of 10 music CDs on a single CD-R or CD-RW. (The figures refer to data recorded on a 650 MB CD-R or CD-RW at a fixed bit rate of 128 kbps and a sampling frequency of 44.1 kHz.)

Converting (encoding) audio data to an MP3 file

- **It is recommended to set the bit rate to "128 kbps or more" and "Fixed".**
- Bit rate 8 kbps of MPEG-2 and sampling frequency 16 kHz of MPEG-2 can not be reproduced.
- If set to VBR (Variable Bit Rate), the file playing time may not be displayed correctly, and the bit rate may flicker.
- The playback sound quality differs depending on the encoding software and the bit rate. For details refer to the user manual of your encoding software.

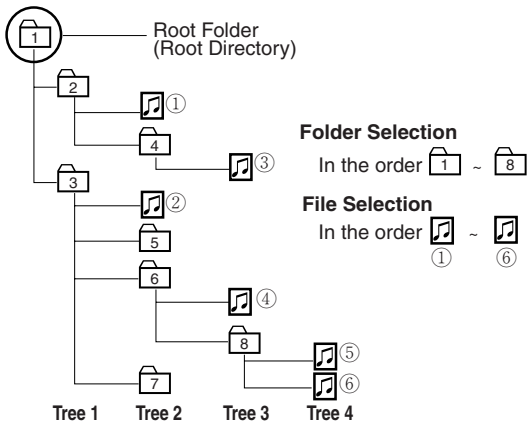
Recording MP3 files on a CD-R/RW

- **Do not record files other than MP3s or unnecessary folders on a disc.** If many folders or files other than MP3s are recorded on a disc, it may take up to a few minutes before playback starts, and you may have difficulties using fast forward and fast reverse.
- **Use ISO 9660 file system (Extension of the ISO 9660 file systems are included.) APPLE HFS file system is not supported**. If they do not conform to ISO 9660 file system, the file may not play normally, or the file or folder names may not be displayed correctly.
- **Make sure to add the ".mp3" extension to each MP3 file name.** A file with a different file name extension or none at all will not play.
- **Although Multi session recording is supported, the use of Disc-at-Once is recommended**. Make sure to close the session when you finished recording on a disc.
- **ID3Tag character information is not displayed.** A file in which character information was recorded by use of ID3Tag 2.0 or later version may not be reproduced normally. For example, the file playing time may not be displayed correctly.
- **Packet writing software is not supported**.
- **A playlist function is not supported**. Record files and folders in the order in which you want them to be played. Some writing software lets you specify the recording order by adding a prefix in the range of "01" - "99", etc. to the file name. For details refer to the user manual of your writing software.

Note: You may encounter trouble in playing MP3s or displaying the information of MP3 files recorded with certain writing softwares or CD recorders (CD-R/RW drives).

Caution: Never assign the ".mp3" file name extension to a file that is not in the MP3 format. This may not only produce noise from the speakers and speaker damage, but can damage your hearing.

Folder Selection Order / MP3 file playback order (Example)



Notes:
- This unit counts the number of folders irrespective of the presence or absence of MP3 file.
- If the selected folder does not contain any MP3 files, the nearest MP3 files in the order of playback will be played.
- Playback order may be defferent from other MP3 players even if the same disc is used.
- "ROOT" appears when displaying the root folder's folder name.

Maximum number of files / folders

- Maximum number of trees: 8
- Maximum number of files/folders: 254 (files + folders. Root folder is not included.)

Note: If the total of files and folders exceeds 254, successful playback may not be performed.

Supported file systems and file names

Supported file system	Displayable folder names and file names
ISO 9660 Level 1	**Name files and folders in accordance with the standard of each file system. Refer to the instructions of writing software for details.** ● This player can display file names of up to 31 letters in scroll mode. * Up to 15 letters can be displayed when scrolling in the Joliet system. ● ASCII character set and special characters in each language can be displayed. Undisplayable characters and symbols will be converted into an asterisk (*). **ASCII character set:** ASCII character set consisting of A to Z, a to z, digits 0 to 9, and the following symbols: (space) ! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [\ ] ^ _ ` { | } ~
ISO 9660 Level 2	
Joliet*	
Romeo	
Apple Extension to ISO 9660	

Glossary

ISO 9660: The most common international standard for the logical format for files and directories.

APPLE HFS: The file system used by the Macintosh operating system to organize data. **(Not supported)**

Multi-session: A method of adding data incrementally to a CD-R or CD-RW in more than one recording session.

Disc-at-Once: A method of writing data in a media by just one operation and no more writing after that.

ID3Tag: A function that allows character information (title, artist, album title, date, etc.) to be written onto the disc. **(Character information not displayed ➡Page 20)**

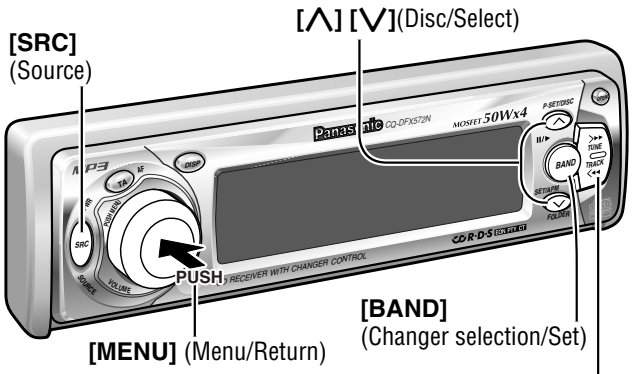
Packet writing: A method of writing data on a CD media in small increments. **(Not supported)**

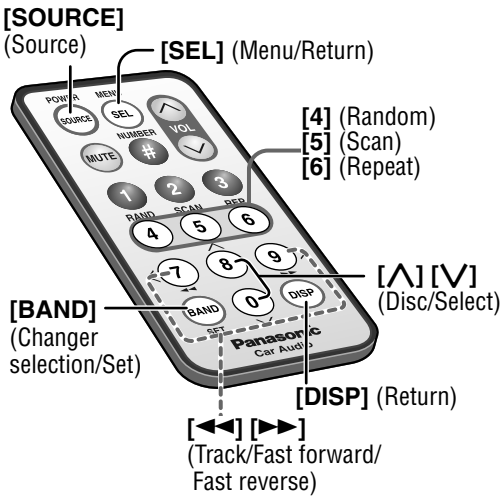
Copyright

It is prohibited by copyright laws to copy, distribute and deliver copyrighted materials such as music without the approval of copyright holder except enjoying yourself personally.

Note: MP3 encode software and writing software are not supplied to this model.

CD Changer Control





CD changer functions are designed for optional Panasonic CD changer unit.
(➡ Page 36 and 37 for connection)

Insert the Magazine

Playback starts.

Notes:

- The power will be turned on automatically when a magazine is loaded. ACC ON
- The unit returns to previous mode when the magazine is ejected in the CD changer mode.

Display Change

Press **[DISP]** .

Disc Number / Track Number

Play Time

Disc Title

(D-TITLE) (Data reading)

Track Title

(T-TITLE) (Data reading)

Clock Time

When magazine is in the changer…

Press **[SRC] / [SOURCE]** to select the CD changer mode and playback starts.

Note: Load a magazine with CDs when “NO DISC” is displayed.

Disc Selection

[∧] : Next disc
[∨] : Previous disc

Track Selection

[►►] : Next track
[◄◄] : Beginning of the current track
Previous track (Press twice.)

Fast Forward / Fast Reverse

Press and hold
[►►] : Fast forward
[◄◄] : Fast reverse
Release to resume the playback.

CD changer Selection

Preparation: Connect another CD changer by using an optional dual CD changer selector (CA-CD55EN).
(➡ Page 37)

Press **[BAND]** to select CD changer 1 or CD changer 2.

Example: CD changer 2 is selected.

Note: This selection is not possible when there is no magazine in the CD changer.

Available Disc

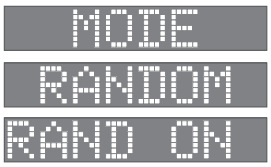
Note: CD text is displayed when the unit is connected to a CD changer capable of recognizing CD text (CX-DP9061EN, for example).

CD Changer Mode Setting

① **[MENU] / [SEL]**

② **[∧]** or **[∨]** : Select an item.

③ **[BAND]**



④ **[∧]** or **[∨]** : Switch on or off in turn.

⑤ **[MENU] / [SEL]** or **[DISP]** : Return to regular mode.

Random Play	All discs RANDOM	RAND ON : All the available tracks on all discs in the magazine are played in a random sequence. RAND OFF : Cancel
	One disc D-RANDOM	D-RND ON : All the available tracks on current disc are played in a random sequence. D-RND OFF : Cancel
Repeat Play	Track REPEAT	REP ON : Repeat the current track selection. REP OFF : Cancel
	Disc D-REPEAT	D-REP ON : Repeat the current disc selection. D-REP OFF : Cancel
Title Scroll Default : ON (Up to 62 letters can be displayed in scroll mode.)	SCROLL	SCRL ON : Continuous scroll SCRL OFF : Scroll stops after a circle scroll Press and hold **[DISP]** for more than 2 seconds to have an another circle scroll while a title is displayed. **Note:** Use a CD having CD text information.

Remote Control Operation

Direct Disc Selection

Example: Disc number 05

❶ Press **[#]** .
❷ Press **[5]**
❸ Press **[BAND]**.

Notes:

- To suspend direct disc selection, press **[#]** or **[DISP]**.
- Random, Scan and Repeat play is canceled once **[#]** is pressed.

Random Play

Track : Press **[4]**.
Disc : Press and hold **[4]**.

Repeat Play

Track : Press **[6]**.
Disc : Press and hold **[6]**.

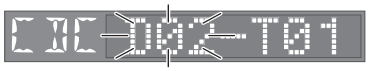
Scan Play

Track Scan

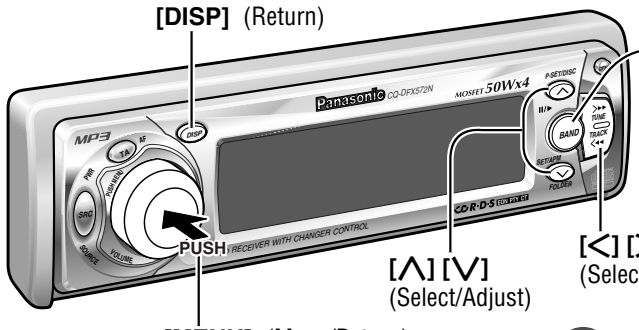
Press **[5]**. The first 10 seconds of each track on all discs are played in sequence. Press **[5]** again to cancel.

Disc Scan

Press and hold **[5]** for more than 2 seconds. From the next disc, the first 10 seconds of the first track on each discs are played in sequence. Press and hold **[5]** again to cancel.



Audio Setting - AUDIO Menu



AUDIO Menu Display

AUDIO

Super High Definition Bass (S·HDB)

Especially for rock music, the bass-sound will be more powerful.

Default : S·HDB OFF

Bass

Turn the bass level up and down.

Default : 0
Setting range : –12 to +12 dB (in 2 dB step)

Treble

Turn the treble level up and down.

Default : 0
Setting range : –12 to +12 dB (in 2 step)

Balance

You can adjust the sound balance among the right and left speakers.

Default : Center
Setting range : 15 levels each

Fader

You can adjust the sound balance among the front and rear speakers.

Default : Center
Setting range : 15 levels each

Sub-Woofer Volume

Default : 0 dB
Setting range : MUTE (-∞), –6 to +6 dB (in 2 dB step)

1

Press **[MENU] / [SEL]** to open the menu.

Press **[>]** or **[<]** to select AUDIO.

Current Source
↕
AUDIO
↕
PICTURE
↕
FUNCTION

2

Press **[∧]** or **[∨]** to select
S·HDB
Press **[BAND]** to set.

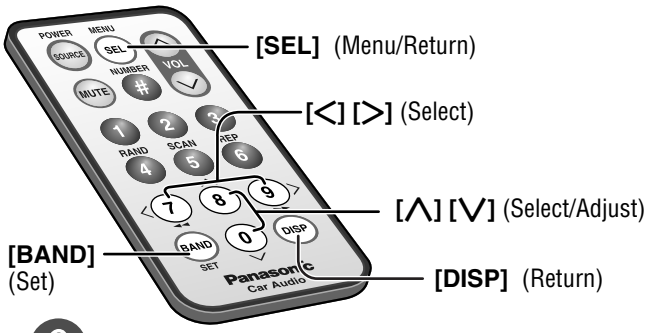
Press **[∧]** or **[∨]** to select
BASS
Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select
TREBLE
Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select
BALANCE
Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select
FADER
Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select
SUB-W
Press **[BAND]** to set.



Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

3

① **[∧]** or **[∨]** to change. ② Press **[BAND]** to set.

SHDB OFF : S·HDB off

BOOM : The bass sound of the speakers are strongly emphasized.

TIGHT : The bass sounds of the speakers are moderately emphasized. (The sound of the Sub-Woofer can be heard clearly.)

① **[∧]** : Enhanced
[∨] : Decrease ② Press **[BAND]** to set.

BAS+12dB

① **[∧]** : Enhanced
[∨] : Decrease ② Press **[BAND]** to set.

TRE+12dB

① **[∧]** : Right enhanced
[∨] : Left enhanced ② Press **[BAND]** to set.

BAL L 8

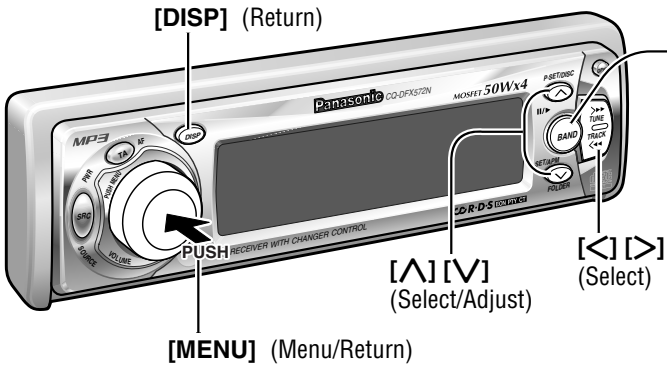
① **[∧]** : Front enhanced
[∨] : Rear enhanced ② Press **[BAND]** to set.

FAD F 8

① **[∧]** : Up
[∨] : Down ② Press **[BAND]** to set.

LEV +6dB

Display Setting - PICTURE Menu



PICTURE (Display) Menu

PICTURE

Dimmer

Default : DIMMER 3

Spectrum Analyzer Display Pattern

Default : Pattern A
Variety : 6 types

Contrast

Default : Level 3
Setting range : Level 1 to Level 5

Display Off

Default : DISP ON (Display on)

1

Press **[MENU] / [SEL]** to open the menu.

Press **[>]** or **[<]** to select PICTURE.

Current Source
↕
AUDIO
↕
PICTURE
↕
FUNCTION

2

Press **[∧]** or **[∨]** to select

DIMMER

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

S·A

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

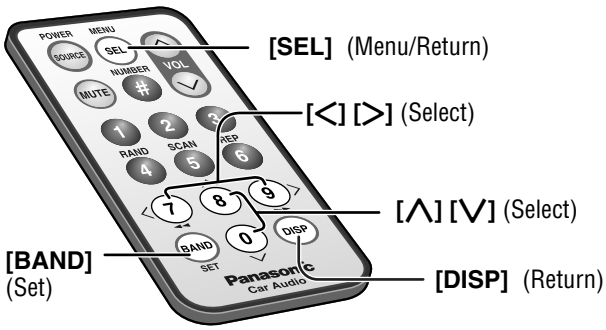
CONTRAST

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

DISPLAY

Press **[BAND]** to set.



Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

3

① Press **[Λ]** or **[V]** to change

DIMMER 3 : Brighter
DIMMER 2 : Medium
DIMMER 1 : Darker

② Press **[BAND]** to set.

① Press **[Λ]** or **[V]** to change

PATTERN1 : Pattern 1
PATTERN2 : Pattern 2
PATTERN3 : Pattern 3
PATTERN4 : Pattern 4
PATTERN5 : Pattern 5
PATT OFF : Off

② Press **[BAND]** to set.

① Press **[Λ]** or **[V]** to change

CONT 5 Decrease
CONT 4
CONT 3
CONT 2
CONT 1 Increase

② Press **[BAND]** to set.

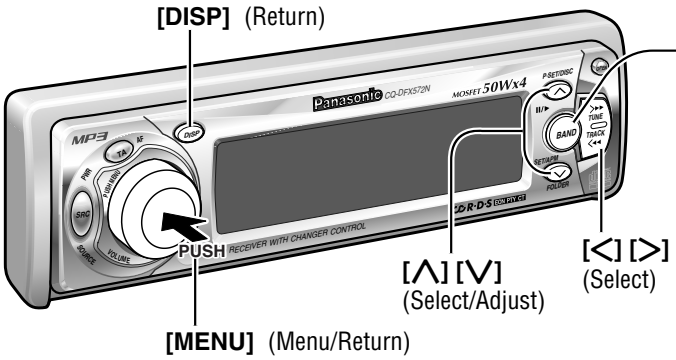
① Press **[Λ]** or **[V]** to switch on or off in turn.

DISP ON Regular display
DISP OFF Switching the display off

② Press **[BAND]** to set.

Note: Even when switching the display off, pressing any button causes the display activated for 5 seconds.

Function Setting - FUNCTION Menu



Mute / Attenuation

Decreasing range by pressing **[MUTE]** button can be selected. (➡ Page 7)

Default : MUTE

External Mute

Allows you to mute the current source while Panasonic navigation system provides voice guidance or car telephone conversation is in progress.
(➡ Page 35 about External Mute Lead connection)
Default : LV 0

Security Function

Allows you to activate the anti-theft function when leaving your car.

Default : ON

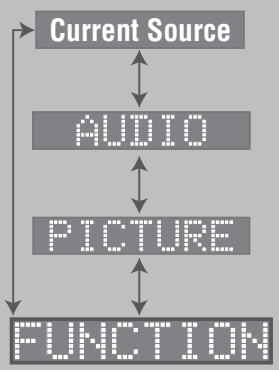
ACC Selection

Default : OFF

Caution: Be sure to select OFF when your car has no ACC position in the ignition switch. Failure to do this could cause the battery to go dead.

Press **[MENU] / [SEL]** to open the menu.

Press **[>]** or **[<]** to select FUNCTION.



Press **[∧]** or **[∨]** to select

MUTE KEY

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

EXT.MUTE

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

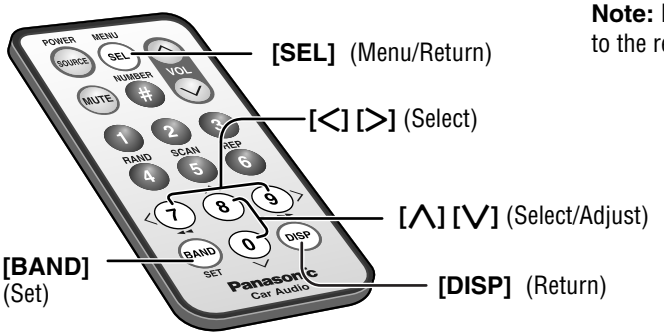
SECURITY

Press **[BAND]** to set.

Press **[∧]** or **[∨]** to select

ACC SET

Press **[BAND]** to set.



Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

① Press **[∧]** or **[∨]** to select

KEY:MUTE : No sound

KEY:ATT : Decrease to 1/10

② Press **[BAND]** to set.

① Press **[∧]** or **[∨]** to change

MUTE LV0 : No sound

MUTE LV1 : Decrease 15 levels

MUTE LV2 : Decrease 10 levels

MUTE OFF : Unchanged

② Press **[BAND]** to set.

Note: The setting state of the External Mute is displayed when the voice guidance or car telephone is used (except when the setting state is OFF).

① Press **[∧]** or **[∨]** to change

SLED ON : Security function is activate.

SLED OFF : Security function is not activate.

② Press **[BAND]** to set.

Security Function

When the power of this unit is turned OFF....
When the key in the ignition is turned OFF.... ACC ON
- Security message will be displayed.
- The panel removal alarm will be active. (➡ Page 33)

When the front panel is removed...
- The security indicator blinks. (➡ Page 33)

PANEL! (Security message)

① Press **[∧]** or **[∨]** to switch the ACC on or OFF in turn.

ACC ON : Set to ON if your car has ACC position.

ACC OFF : Set to OFF if your car has no ACC position.

② Press **[BAND]** to set.

ACC ON

- The demonstration message is shown when **[SRC] / [SOURCE]** is pressed for 4 seconds or more to turn on the power.
- The ending is shown when power is switched off.
- Power is turned on when a disc or magazine is inserted while power is off.
- The Clock Time can be displayed while power is off.
- When the ignition key is turned to OFF, the security message is shown and the panel removal alarm sounds (at Security Function ON setting).

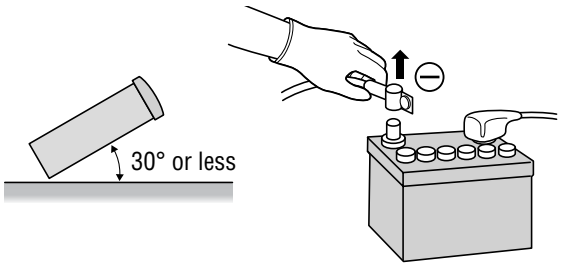
ACC OFF

- When power is turned off, the security message is shown and the panel removal alarm sounds (at Security Function ON setting).

Installation

Preparation

- Before installation, check the radio operation with antenna and speakers.
- Disconnect the cable from the negative (–) battery terminal (see caution below).
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.

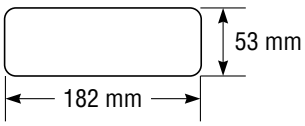


Caution: Do not disconnect the battery terminals of a car with trip or navigational computer since all user settings stored in memory will be lost. Instead take extra care with installing the unit to prevent shorts.

Dashboard Installation

Installation Opening

The unit can be installed in any dashboard having an opening as shown at right. The dashboard should be 4.5 mm - 6 mm thick in order to be able to support the unit.



Installation Precautions

This product should be installed by a professional installer, if possible.

In case of difficulty, please consult your nearest authorized Panasonic Service Center.

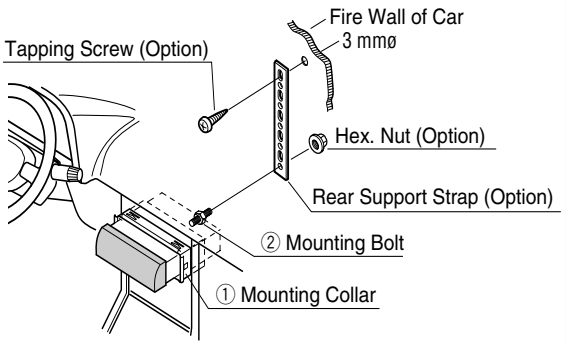
1. This system is to be used only in a 12-volt, DC battery system (car) with negative ground.
2. Follow the electrical connections carefully (➡ Page 34). Failure to do so may result in damage to the unit.
3. Connect the power lead (red) after all other connections are made.
4. Be sure to connect the battery lead (yellow) to the positive terminal (+) of the battery or fuse block (BAT) terminal.
5. Insulate all exposed wires to prevent short circuiting.
6. Secure all loose wires after installing the unit.
7. Please carefully read the operating and installation instructions of the respective equipment before connecting it to this unit.

Supplied Hardware

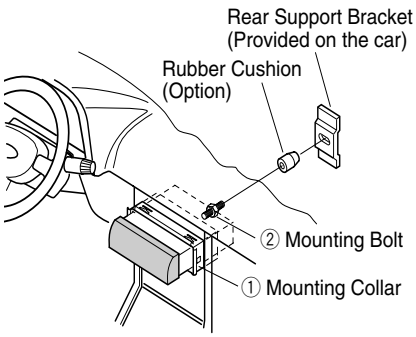
No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Mounting Bolt (5 mmø)		1
③	Power Connector		1
④	Removable Face Plate Case		1
⑤	Trim Plate		1
⑥	ISO Antenna Adapter		1
⑦	Lock Cancel Plate		2

Method for Fixing the Rear of the Unit

(a) Using the Rear Support Strap (Option)



(b) Using the Rubber Cushion (Option)



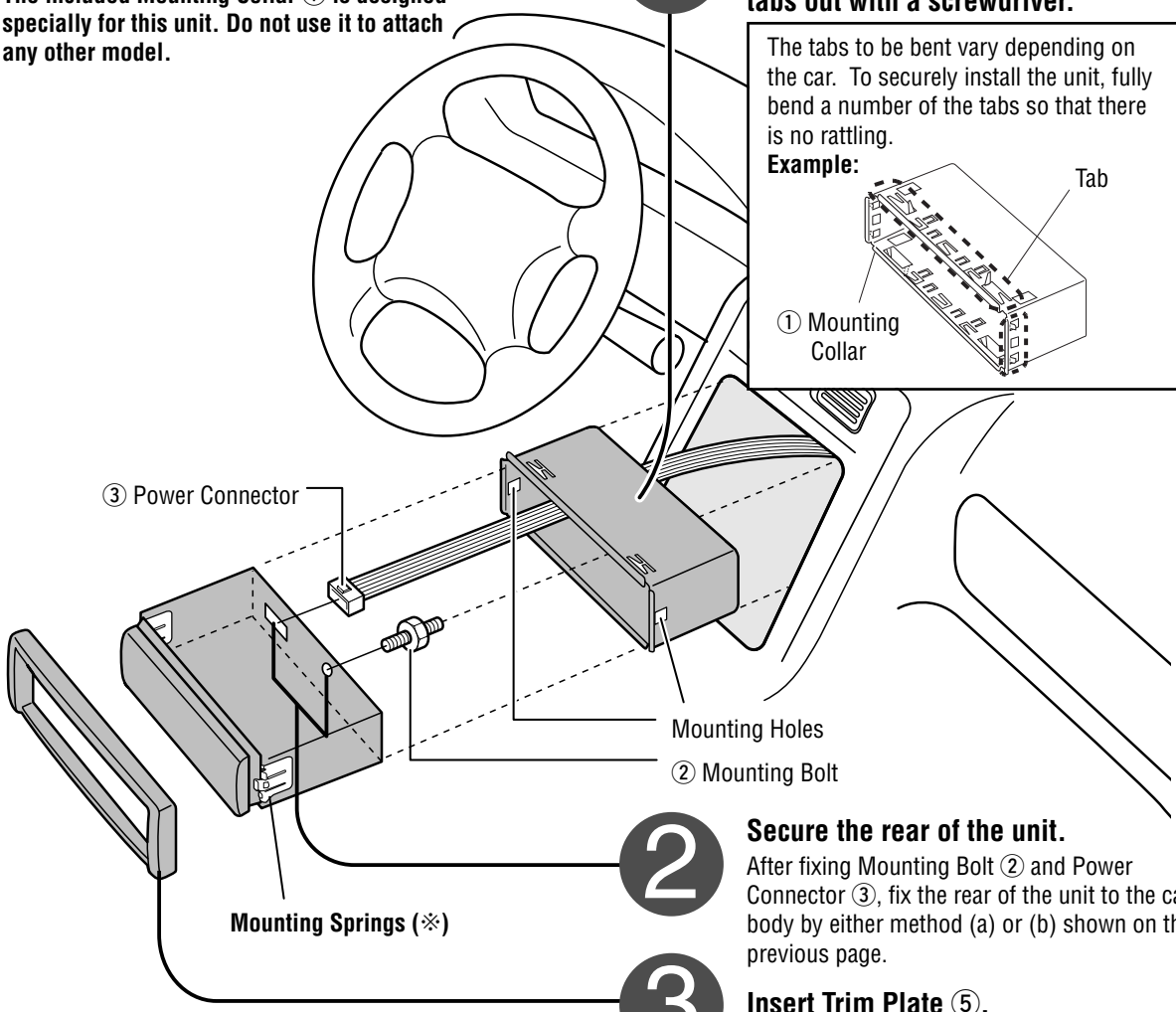
Cautions:
- **We strongly recommend that you wear gloves for installation work to protect yourself from injuries.**
- **When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.**

First complete the electrical connections, and then check them for correctness.(➡ Page 34)
The included Mounting Collar ① is designed specially for this unit. Do not use it to attach any other model.

1 Insert Mounting Collar ① into the dashboard, and bend the mounting tabs out with a screwdriver.

The tabs to be bent vary depending on the car. To securely install the unit, fully bend a number of the tabs so that there is no rattling.

Example:

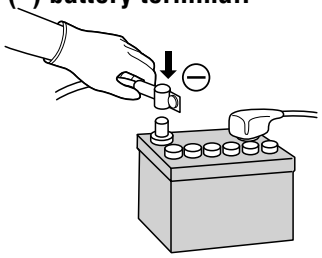


2 Secure the rear of the unit.

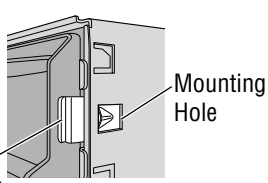
After fixing Mounting Bolt ② and Power Connector ③, fix the rear of the unit to the car body by either method (a) or (b) shown on the previous page.

3 Insert Trim Plate ⑤.

4 After installation reconnect the negative (–) battery terminal.



Engage the Mounting Springs (※) in the mounting holes of the Mounting Collar ① firmly.



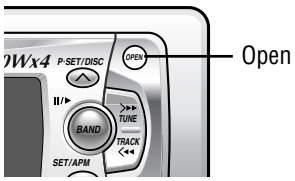
Installation (continued)

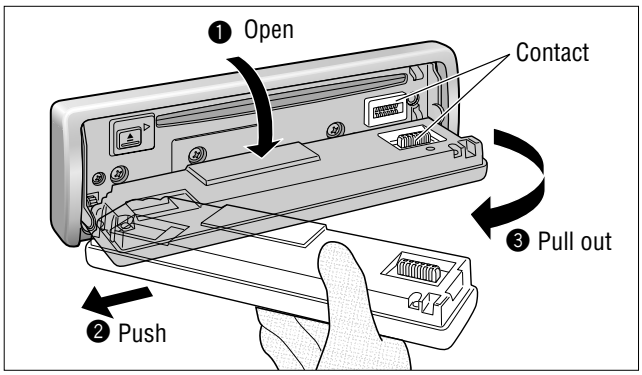
To Remove the Unit

Switch off the power of the unit.

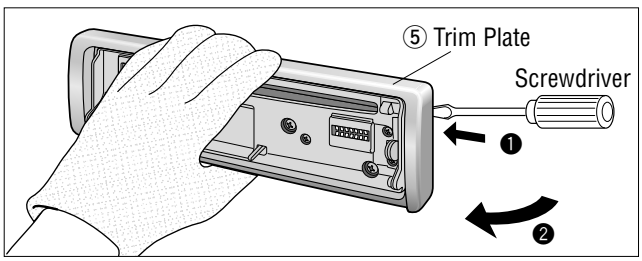
1 Remove the removable face plate.

❶ Press **[OPEN]**. The removable face plate will be opened.
❷ Push the face plate to either the right or left.
❸ Pull it out toward you.

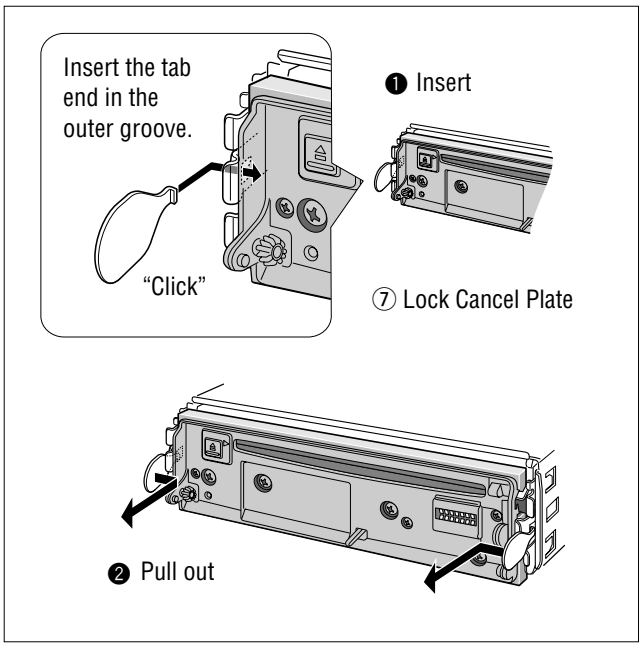




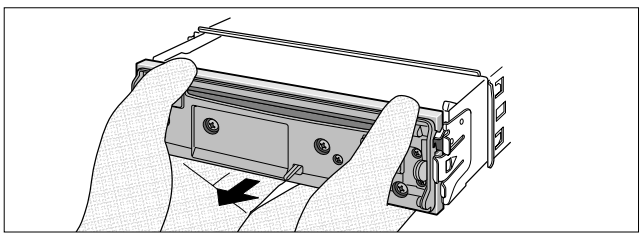
2 Remove the Trim Plate ⑤ with a screwdriver.



3 ❶ Insert the Lock Cancel Plates ⑦ along the grooves on both sides of the main unit until "click" is heard.
❷ Pull out the unit while pushing the plates further inside.

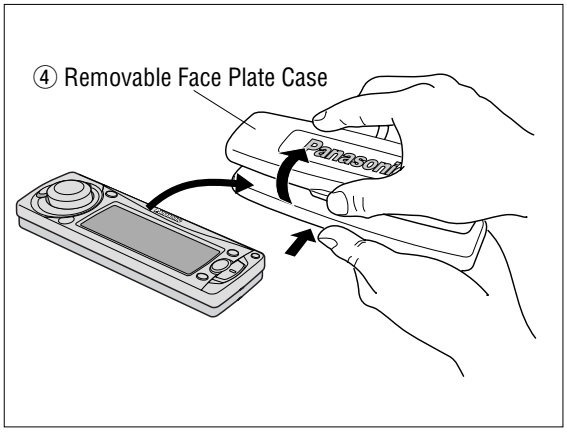


4 Remove the unit pulling with both hands.



Anti-Theft System

This unit is equipped with a removable face plate. Removing this face plate makes the radio totally inoperable. The security indicator will blink.



Place Removable Face Plate into Case

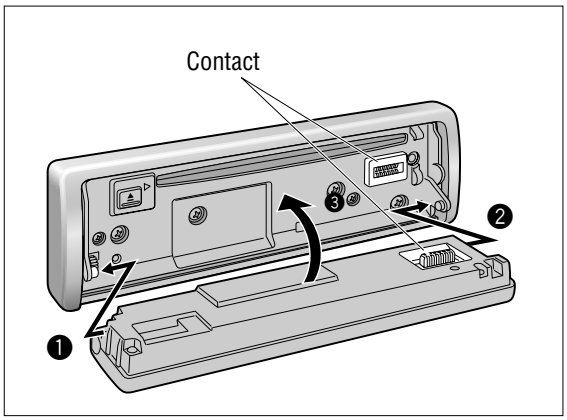
❶ Switch off the power of the unit.

❷ Remove the removable face plate. (➡ Page 32)

❸ Gently press the bottom of the case and open the cover. Place the face plate into the case and take it with you when you leave the car.

Install Removable Face Plate

❶ Fit the face plate with its right or left hole on one of the pins provided on the main unit.
❷ Fit the other hold on the other pin applying slight pressure.
❸ Move the face plate up and down a few times to make sure it is secure. Then close the front panel and press down the right side of the face plate until it clicks into plate.

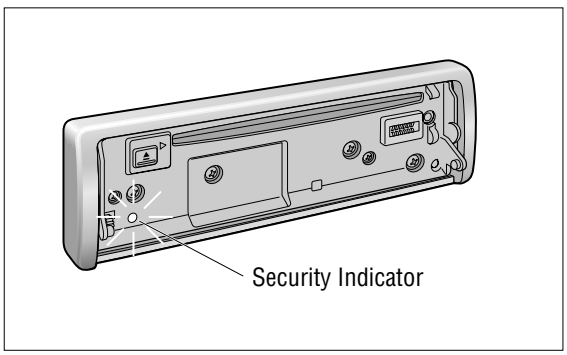


Security Indicator

The security indicator blinks when the removable face plate is removed from the unit.
This function is activated when the Security Function is ON. (➡ Page 28)

Panel Removal Alarm

This alarm sounds to warn you not to forget to remove the panel before leaving your car.
This function is activated when the Security Function is ON. (➡ Page 28)



Cautions:
- This face plate is not waterproof. Do not expose it to water or excessive moisture.
- Do not remove the face plate while driving your car.
- Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.
- Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
- If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.

Electrical Connections

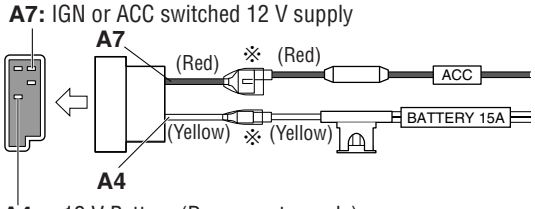
Precautions (ISO Connector)

- The pin arrangement of the power connector conforms to ISO standard.
- The pin arrangement of ISO connectors in some cars may differ from the ISO standard.
- Please check that the pin arrangement of the connector in your car conforms to ISO standard.
- For car types A and B, change the wiring of the red and yellow leads as shown at below.
- After connection, insulate the portions marked (※) with insulating tape.

Note: For cars other than types A and B, please consult your local car shop.

Standard ISO

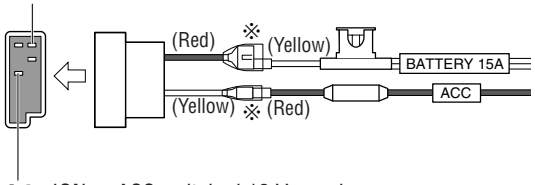
A7: IGN or ACC switched 12 V supply



A4: +12 V Battery (Permanent supply)

Car Type A

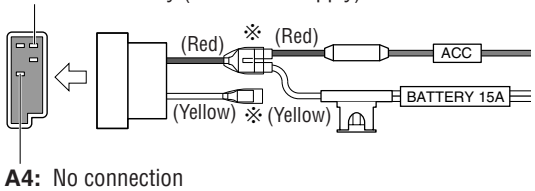
A7: +12 V Battery (Permanent supply)



A4: IGN or ACC switched 12 V supply

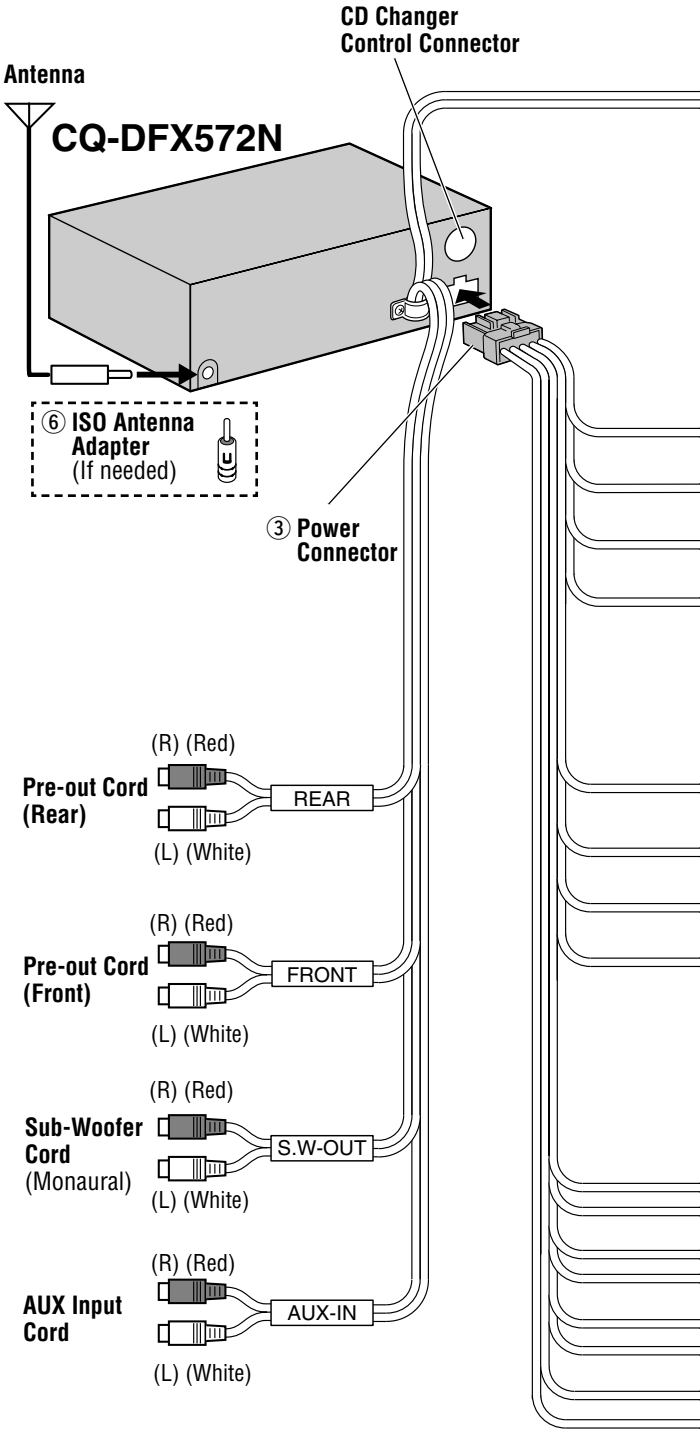
Car Type B

A7: +12 V Battery (Permanent supply)

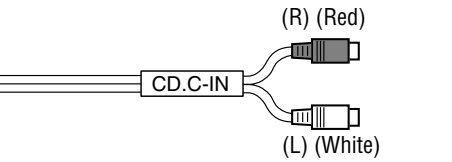


A4: No connection

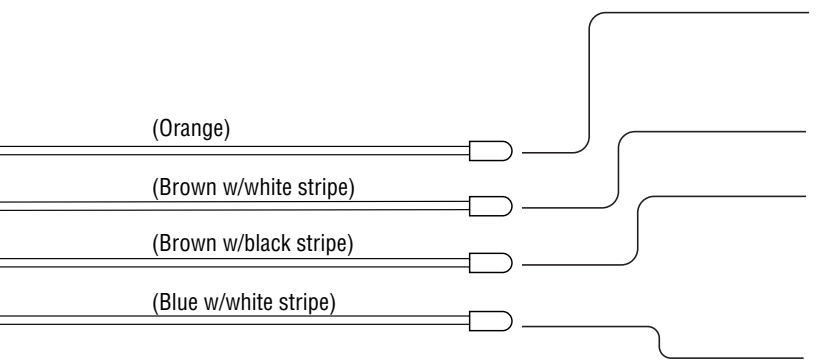
Wiring Diagram



Cautions:
- Check the connectors provided on your car (see precaution below) before connecting the system.
- This unit is designed for use in a car having a 12-volt negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram.
- Strip about 5 mm of the lead ends for connection (only non-ISO connector cords).
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires to prevent short circuiting with the car chassis. Bundle all cables, and prevent cable terminals from touching any metal parts.



CD Changer Input Cord

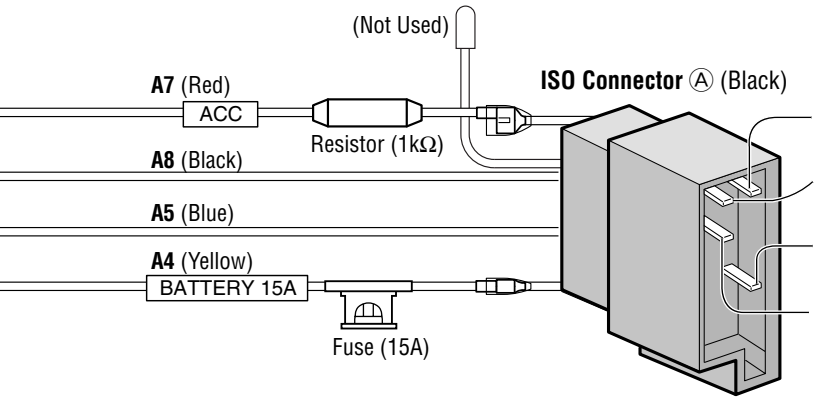


C1 : External Mute Lead (Orange)
To the Navi Mute lead of the Panasonic car navigation system or car telephone mute lead.

C2 : Dual CD Changer Control Lead
(Brown w/white stripe)

C3 : External Remote Control Lead
(Brown w/black stripe)
When using a non-Panasonic external remote control, refer to the manufacture for their product before connecting.

C4 : External Amplifier Control Power Lead
(Blue w/white stripe)
To an external amplifier.



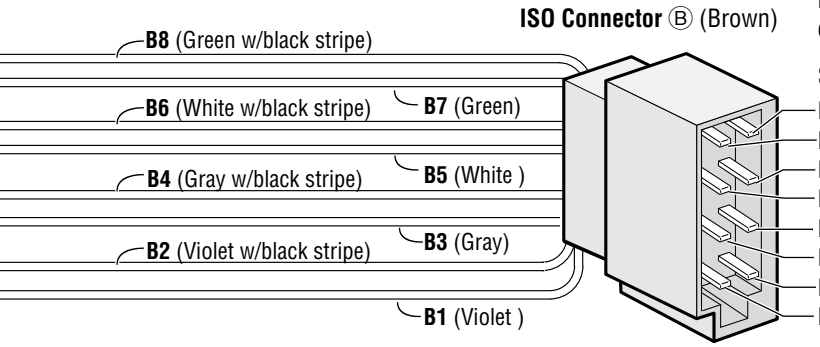
A8 : Ground Lead (Black)
To a clean, bare metallic part of the car chassis.

A7 : Power Lead (ACC or IGN) (Red)
To ACC power, +12 V DC.

A4 : Battery Lead (Yellow)
To the car battery, continuous +12 V DC.

A5 : Motor Antenna Relay Control Lead
(Blue)
To Motor Antenna (Max. 500mA)
This lead is not intended for use with a switch actuated power antenna.

Note: The power antenna extends automatically when the power of this unit is turned on.



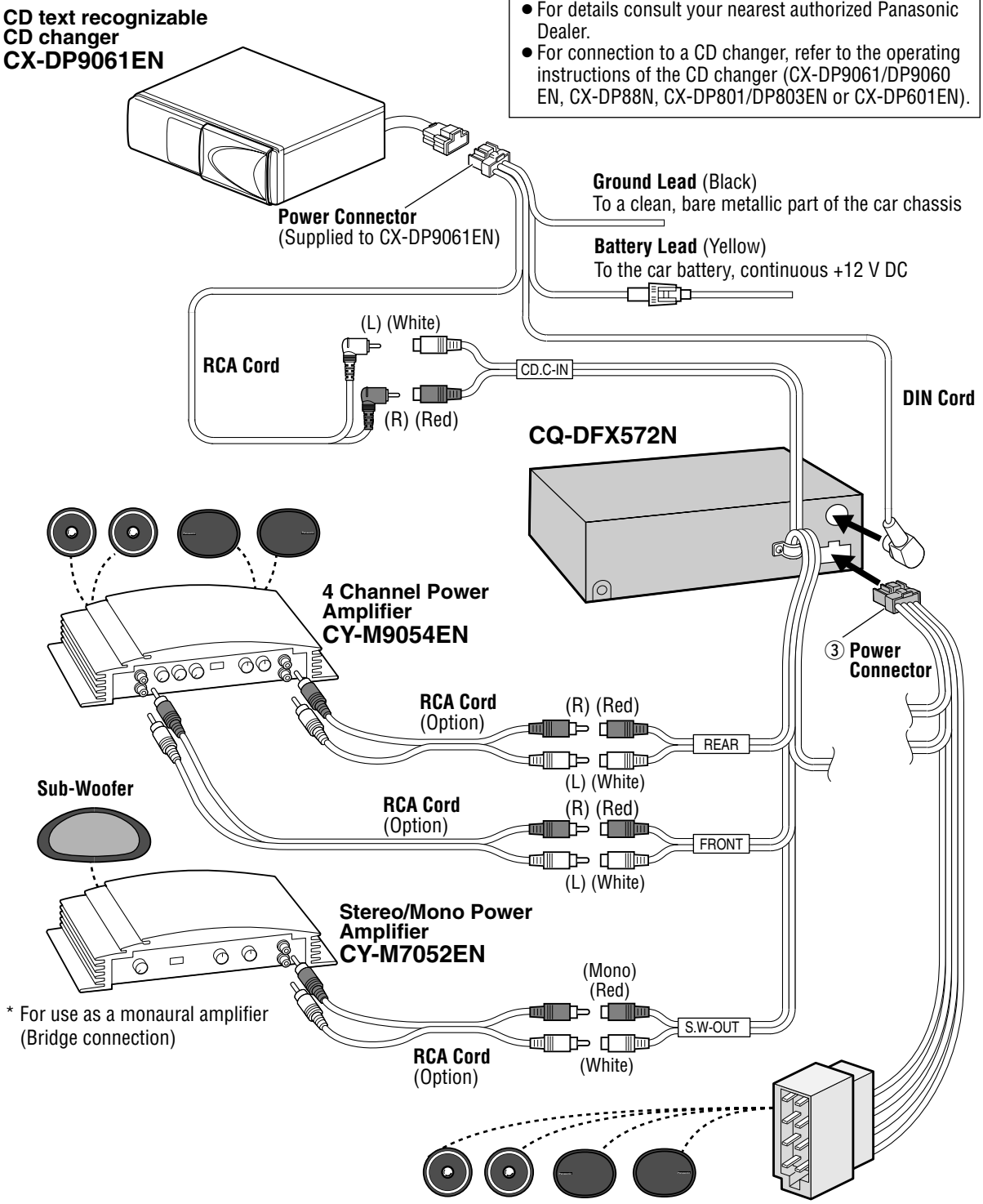
Speakers
B8 : Rear Left–
B7 : Rear Left +
B6 : Front Left –
B5 : Front Left +
B4 : Front Right –
B3 : Front Right +
B2 : Rear Right–
B1 : Rear Right +

Electrical Connections (continued)

System Upgrade Example 1 : Nine Speakers and CD Changer

Combination: CD Changer (CX-DP9061EN), 4 Channel Power Amplifier (CY-M9054EN) and Stereo/Mono Power Amplifier (CY-M7052EN)

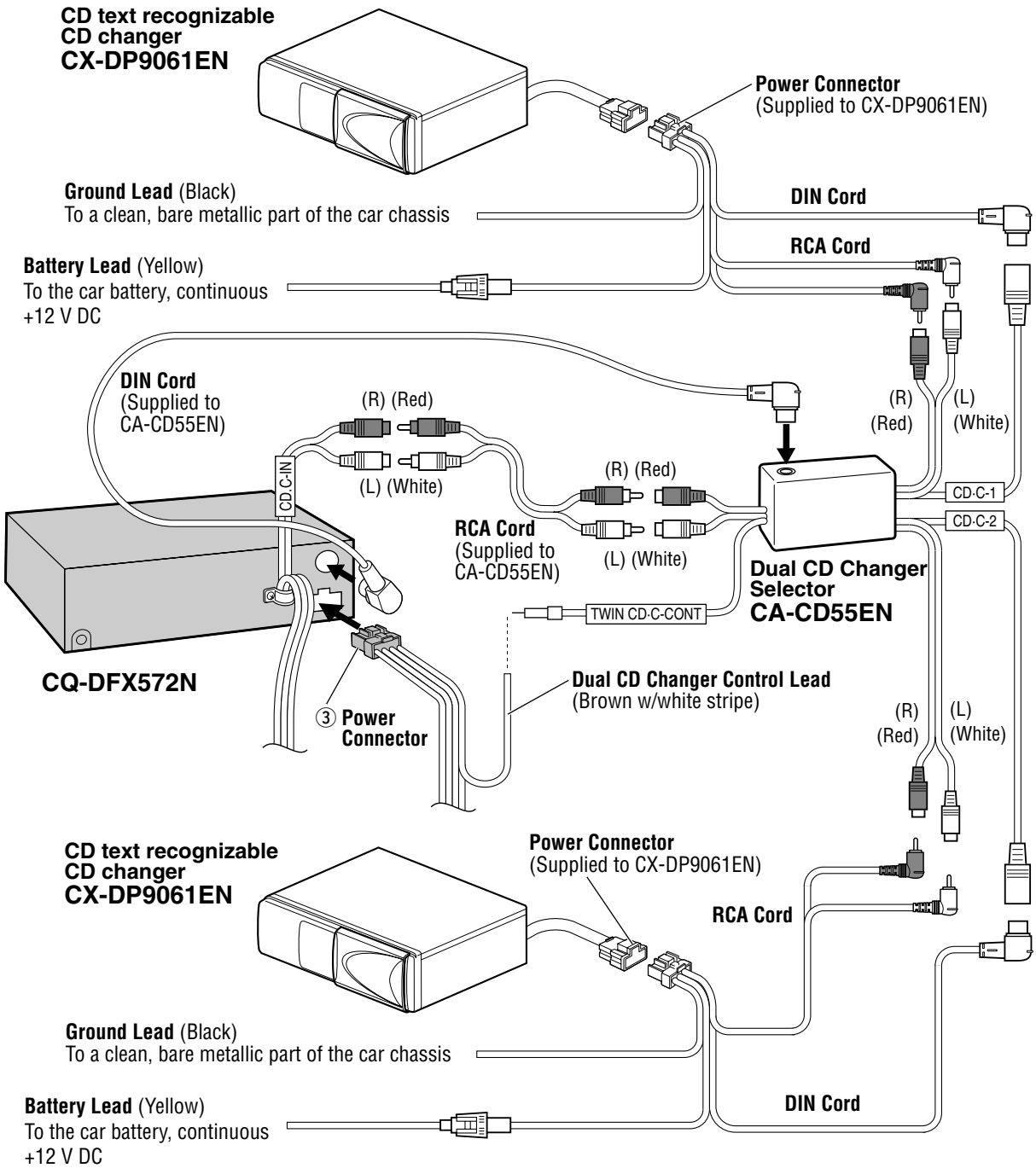
- This unit can be connected to an optional CD changer (CX-DP9061/DP9060EN, CX-DP88N, CX-DP801/DP 803EN or CX-DP601EN) and extension cord. (Supplied to CD changer.)
- For details consult your nearest authorized Panasonic Dealer.
- For connection to a CD changer, refer to the operating instructions of the CD changer (CX-DP9061/DP9060 EN, CX-DP88N, CX-DP801/DP803EN or CX-DP601EN).



System Upgrade Example 2 : Connecting Two CD Changers

Combination: Two CD Changer (CX-DP9061EN)

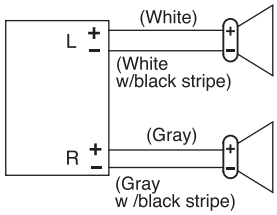
Note: To connect two CD changers, the optional dual CD changer selector (CA-CD55EN) is necessary.



Speaker Connections

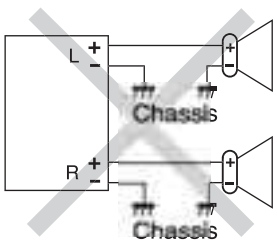
Caution: Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.

<Right>

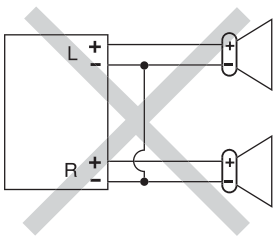


- Use ungrounded speaker only.
- The maximum speaker output should be 50 W or more. (If used with the optional power amplifier, the speaker output should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 - 8 Ω.
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

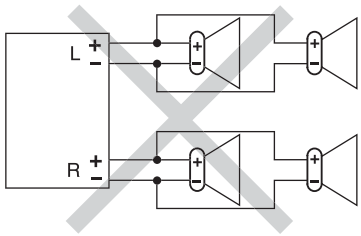
<Wrong>



- Never connect the speaker cord to the body of the car.



- Do not use a 3-wire type speaker system having a common earth lead.



- Do not connect more than one speaker to one set of speaker leads.

Fuse

Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.
If the replacement fuse fails, contact your nearest authorized Panasonic Service Center.

Maintenance

Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

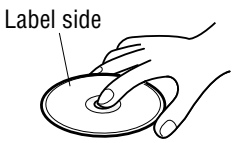
Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)

If you use commercial CDs, they must have either of these labels shown at right.

COMPACT disc DIGITAL AUDIO

COMPACT disc DIGITAL AUDIO TEXT

How to hold the disc
- Do not touch the underside of the disc.
- Do not scratch on the disc.
- Do not bend disc.
- When not in use, keep disc in the case.

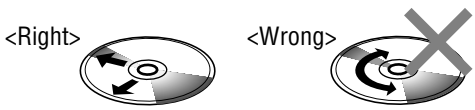


Do not use irregularly shaped discs.

Do not use irregularly shaped discs.

Do not leave discs in the following places:
- Direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- Seats and dashboards

Disc cleaning
Use a dry, soft cloth to wipe from the center outward.



Do not attach any seals or labels to your discs.

Do not write on the disc label in a heavy pen or ballpoint pen.

Notes on CD-Rs/RWs

- You may have trouble playing back some CD-R/RW discs recorded on CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints, scratches, etc. on the disc surface.
- CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a car for extended periods may damage and make playback impossible.
- Some CD-R/RWs can not be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs.
- This player cannot play the CD-R/RW discs if the session is not closed.
- This player cannot play the CD-R/RW discs which contains other than CD-DA or MP3 data (Video CD, etc.).
- Be sure to observe the instructions of CD-R/RW disc for handling it.

Troubleshooting

Preliminary Steps

Check and take steps as described in the tables below.

If You Suspect Something Wrong

Immediately switch power off.
Disconnect the power cable and check that there is neither smoke nor heat from the unit before asking for repairs. Never try to repair the unit yourself because it is dangerous to do so.

Cautions:
- Do not use the unit if it malfunctions or something is wrong.
- Do not use the unit in an irregular condition, for example, without sound, or with smoke or foul smell, which can cause ignition or electric shock. Immediately stop using the unit and call the store where you purchased it.

Product Service

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Service Center. The product should be serviced only by a qualified technician.

Common

Problem	Possible cause / Possible solution
No power.	Car's engine switch is not on. ➡**Turn your car's ignition switch to ACC or ON.**
	Cables are not correctly connected. ➡**Connect cables correctly.** **Battery cable: Connect the battery cable to the terminal that is always live.** **Accessory cable: Connect the accessory cable to your car's ACC source.** **Grounding wire: Connect the grounding wire to a metal part of your car.**
	Fuse is burnt. ➡**Call the store where you purchased the unit, or your nearest Panasonic Service Center and ask for replacement fuse.**
No sound.	Mute is set to ON. ➡**Set it to OFF.**
	Cables are not correctly connected. ➡**Connect cables correctly.**
	External Mute lead is not correctly connected. ➡**Connect the External Mute lead correctly.**
	Condensation (dew). ➡**Wait for a while before use.**
Only sound, no display.	Display is set to OFF. ➡**Set it to ON (➡ Page 26).**
Noise.	A mobile phone is used near the unit. ➡**Keep the mobile phone away from the unit.**
Buttons unusable (each source operation.)	Menu mode is activated. ➡**Press [MENU] / [SEL] or [DISP] to return to the regular mode.**
Audio sound is output but the display shows demonstration message.	Demonstration mode is ON. ➡**Press [DISP] to cancel the demonstration mode.**

Radio

Problem	Possible cause / Possible solution
Poor reception in FM stereo and monaural broadcasts.	Station is too far, or signals are too weak. ➡**Select other stations of higher signal level.**
	The radio antenna is not extended enough. ➡**Extend the radio antenna enough.**
	The motor antenna relay control lead is not connected correctly. ➡**If there is a motor antenna in the car, connect the motor antenna relay control lead to the motor antenna lead that is installed in the car correctly.**
Preset station is reset.	Battery cable is not correctly connected. ➡**Connect the battery cable to the terminal that is always live.**

CD / MP3

Problem	Possible cause / Possible solution
Disc is in the CD compartment but no sound is made, or disc is ejected automatically.	Disc is upside down. ➡**Place disc in the correct direction with the label side up.**
	Disc is dirty. ➡**Clean disc, referring to the section on "Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)" (➡ Page 39).**
	A disc that has data other than CD-DA or MP3 type is loaded. ➡**Discs that have CD-DA or MP3 type data should be used.**
	➡**Some CD-R/RWs can not be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs. Refer to instructions for the concerned devices for details.**
Sound skips, bad sound quality. (e.g. caused by noise)	Disc is dirty. ➡**Clean disc, referring to the section on "Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)" (➡ Page 39).**
	➡**Some CD-R/RWs can not be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs. Refer to instructions for the concerned devices for details.**
Sound skip due to vibration.	Mounting angle is over 30 degrees. ➡**Adjust mounting angle to less than 30 degrees.**
	Unstable mounting. ➡**Mount the unit securely with the mounting parts, referring to the section on Installation.**
Disc is not ejected.	● CD is defective. ● Mechanical trouble. ➡**Open the panel and press [⏏]. If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Service Center to ask for repairs.**

Troubleshooting (continued)

CD

Problem	Possible cause / Possible solution
CD text is not displayed normally.	Disc is dirty, or has scratches. ➡**Clean disc, referring to the section on "Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)" (➡ Page 39).**
Time is counted but no sound comes out.	The 1st track of a mix mode disc was reproduced. (Mix mode is a format in which data except music is recorded on the 1st track and music data is recorded on other than the 1st track in a session.) ➡**Playback music data recorded on other than the 1st track.**

MP3

Problem	Possible cause / Possible solution
No playback.	The disc does not conform to any of the file systems supported by this player. ➡**Insert a disc that conforms to the file systems supported by this player. For supported file systems, see "Points to remember when recording an MP3 disc" (➡ Page 20).**
	The MP3 file is missing the ".mp3" file name extension. ➡**Make sure to add the ".mp3" extension to each MP3 file name.**
It takes too long for playback to start.	The folders and files recorded on the disc are layered too much. ➡**As checking of files takes longer in this case, do not record any unnecessary folders or files other than MP3s on the disc. (If there are many hierarchies of files and folders, it may take up to 150 seconds to start playback.)**
Poor recording quality, sound skipping.	➡**The recording quality differs depending on the encoding software used, and on settings such as the bit rate. Set the bit rate within the range specified in the specifications chart (➡ Page 45). It is recommended to set the bit rate to "128 kbps or more" and "Fixed".**
	High-speed writing was executed when MP3 data was recorded on the disc. ➡**Decrease writing speed as low as possible.**
Files are not played in the desired order.	Files or folders are not recorded in the desired playback order. ➡**Some writing software lets you specify the recording order by adding a prefix in the range of "01" - "99", etc. to the file name. For details refer to the user manual of your writing software.**
Folder / file name is not displayed correctly.	The disc does not conform to the file systems supported by this player. ➡**Insert a disc that conforms to the file systems supported by this player. For supported file systems see "Points to remember when recording an MP3 disc" (➡ Page 20).**
	➡**There may be a problem with your writing software or CD recorder (CD-R/RW drive). For details refer to the user manual of your writing software.**

■ MP3 (Continued)

Problem	Possible cause / Possible solution
File playing time is not displayed correctly.	You ran the file in fast forward or fast reverse during playback or turned off the ignition switch of the car during playback. ➡**Playing another file will return the file playing time to normal.**
	You played a VBR (Variable Bit Rate) format MP3 file. ➡**The file playing time of VBR (Variable Bit Rate) format MP3 file is sometimes displayed incorrectly.**
	You played a file in which character information had been recorded by use of ID3Tag 2.0 or later version. ➡**A file in which character information was recorded by use of ID3Tag 2.0 or later version may not be reproduced normally. For example, the file playing time may not be displayed correctly.**

■ Sound Setting

Problem	Possible cause / Possible solution
No sound from left, right, front, or rear speaker.	Left and right balance, or front and rear balance is off on one side. ➡**Adjust BALANCE and FADER as appropriate (➡ Page 24).**
	Cables are not correctly connected. ➡**Connect the cables correctly.**
Left and right sounds are reversed.	The right speaker lead is connected to the left speaker and the left speaker lead to the right speaker. ➡**Connect the speaker leads to the correct one.**

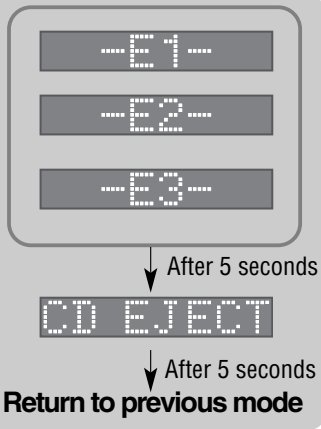
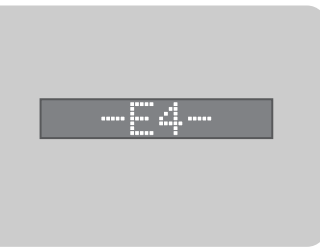
■ Remote Control

Problem	Possible cause / Possible solution
Buttons are invalid for operation.	Battery polarities (+) (–) are reversed. ➡**Insert the battery correctly.**
	Wrong battery ➡**Check the battery.**
	Battery have run down. ➡**Replace the battery.**
	Remote control is in the wrong direction. ➡**Direct the remote controller at REMOTE (sensor) on the panel.**

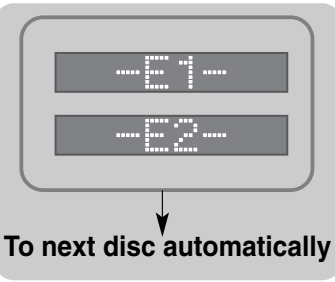
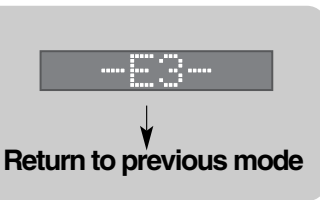
Troubleshooting (continued)

Error Display Messages

CD / MP3

Display	Possible cause / Possible solution
	Disc is dirty, or is upside down. A disc that has data other than CD-DA or MP3 type is loaded. Disc has scratches. No operation by some cause. **➡Open the panel and press [⏏].** **● Check the disc.** **● Load the disc again.**
	When there is no MP3 files in the specified folder during direct MP3 folder selection. **➡Press [⋀] or [⋁] to select another folder which contains MP3 files.** The player for some reason cannot read the file you are trying to play. (File recorded in an unsupported file system, compression scheme, data format, file name extension, damaged data, etc.) **➡Select a file that the player can read. Confirm the type of data recorded on the disc. Create a new disc if necessary.**

CD Changer

Display	Possible cause / Possible solution
	Disc is dirty, or is upside down. A disc that has data other than CD-DA type is loaded. Disc has scratches. **➡Eject the magazine.** **● Check disc.** **● Load the disc again.**
	No operation by some cause. **➡Eject the magazine. If failure persists, press the reset switch on the CD changer. If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Service Center to ask for repairs.** **The display continues if the power is not turned off automatically.**
	No disc is in the CD Changer (magazine). **➡Insert discs into the changer (magazine).**

Note: Displays and the steps to be taken for errors vary in part from changer to changer. For details, refer to the Operating Instructions for the changer used.

Specifications

General	
Power Supply	: DC 12 V (11 V - 16 V), Test Voltage 14.4 V, Negative Ground
Current Consumption	: Less than 2.5 A (CD mode, 0.5 W 4-Speaker)
Maximum Power Output	: 50 W x 4 (at 4 Ω)
Power Output	: 22 W x 4 (DIN45 324, at 4 Ω)
Speaker Impedance	: 4 - 8 Ω
External Input Impedance	: 10 kΩ (AUX IN)
External Input Sensitivity	: Max. 2 V (AUX IN)
Pre-Amp Output Voltage	: 2.5 V (CD mode)
Pre-Amp Output Impedance	: 200 Ω
Sub-Woofer Output Voltage	: 2.5 V
Dimensions	: 178 (W) x 50 (H) x 150 (D) mm
Weight	: 1.6 kg

FM Stereo Radio	
Frequency Range	: 87.5 - 108 MHz
Usable Sensitivity	: 6 dB/µV (S/N 30 dB)
Stereo Separation	: 35 dB (at 1 kHz)

MW Radio	
Frequency Range	: 531 - 1,602 kHz
Usable Sensitivity	: 29 dB/µV (S/N 20 dB)

LW Radio	
Frequency Range	: 153 - 279 kHz
Usable Sensitivity	: 34 dB/µV (S/N 20 dB)

CD Player	
Sampling Frequency	: 8 times oversampling
DA Converter	: MASH•1 bit/4 DAC System
Error Correction System	: Panasonic Super Decoding Algorithm
Pick-Up Type	: Astigma 3-beam
Light Source	: Semiconductor laser
Wavelength	: 780 nm
Frequency Response	: 5 Hz - 20 kHz (±1 dB)
Signal to Noise Ratio	: 90 dB
Total Harmonic Distortion	: 0.01 % (1 kHz)
Wow and Flutter	: Below measurable limits
Channel Separation	: 70 dB
MP3 decoding	: MPEG 1 Audio Layer 3 MPEG 2 Audio Layer 3
Bit Rate	
(MPEG 1 Audio Layer 3)	: 32 kbps - 256 kbps, VBR (Variable Bit Rate)
(MPEG 2 Audio Layer 3)	: 16 kbps - 160 kbps, VBR (Variable Bit Rate)
Sampling Frequency	
(MPEG 1 Audio Layer 3)	: 32 kHz, 44.1 kHz, 48 kHz
(MPEG 2 Audio Layer 3)	: 22.05 kHz, 24 kHz

Note: Specifications and design are subject to modification without notice due to improvements.

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YEFM283837 D0202-1032 Printed in China